DISTRIBUTION OF FISH EGGS AND LARVAE, TEMPERATURE, AND SALINITY IN THE GEORGES BANK-GULF OF MAINE AREA, 1955





UNITED STATES DEPARTMENT OF THE INTERIOR, STEWART L. UDALL, SECRETARY
Fish and Wildlife Service, Clarence F. Pautzke, Commissioner
Bureau of Commercial Fisheries, Donald L. McKernan, Director

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Robert R. Marak, John B. Colton, Jr. and Donald B. Foster



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DISTRIBUTION OF FISH EGGS AND LARVAE, TEMPERATURE, AND SALINITY IN THE GEORGES BANK-GULF OF MAINE AREA, 1955

by

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ABSTRACT

Basic data on the distribution of fish eggs and larvae in the Georges Bank-Gulf of Maine area were collected on surveys made by the Bureau of Commercial Fisheries research vessel Albatross III during the spring of 1955. The data are presented in tabular and graphic form. Plots and tables of surface temperature and salinity are also included.

INTRODUCTION

This is the second in a series of reports presenting basic data on fish egg and larvae surveys made on the research vessel Albatross III in the Georges Bank-Gulf of Maine area,

Information on the background of the surveys, objectives, methods, and procedures followed at sea and in the laboratory are given in the report for 1953 (Marak and Colton, 1961).

COLLECTION OF DATA

Four cruises were made during the spring of 1955: cruise no. 57, February 21 to March 2; cruise no. 58, March 19 to April 1; cruise no. 60, April 19 to May 2; cruise no. 61, May 16-28. The February cruise was added to the program this year because the data collected in 1953 showed that haddock spawning had begun earlier than March. These surveys were designed to cover the entire spawning period of haddock.

The procedure involved continuous towing of the Hardy Plankton Recorder ³ (Hardy, 1936 and 1939) at the surface and 10 meters, bathythermograph lowerings, surface temperature and salinity observations, drift bottle releases, and surface tows with a 1-meter net ⁴.

A list of the species of fish eggs and larvae (with species code letters used in the tables), collected during the 1955 survey cruises, is given in table 1.

Data for temperature and salinity observations in relation to 1-meter tows and Hardy Plankton Recorder gauze sections are given in tables 2-5.

The cruise plan and methods (Hardy Plankton Recorder, 1-meter net tows, and drift bottles) used aboard ship for the collection of data presented in this report are the same as those followed in the spring of 1953 (Marak and Colton, 1961).

Although slight changes were made in the track of the vessel (to make use of knowledge gained from the 1953 (cruises), the basic pattern and area covered were essentially

¹Temporarily detailed to Bureau of Commercial Fisheries Biological Laboratory, Auke Bay, Alaska.

² Presently employed at the Woods Hole Oceanographic Institution, Woods Hole, Massachusetts.

³No. 3 silk was used in making the gauzes for the Hardy Plankton Recorder.

⁴ No. 0 silk was used in the 1-meter net.

similar. Two Hardy Plankton Recorders were lost this year when the towing wire parted; one on cruise no. 57 on February 26, and the other on cruise no. 58 on March 30. Both instruments were being towed at 10 meters. Positions of drift bottle releases and recoveries for 1955 may be found in Bumpus and Day (1957).

LABORATORY EXAMINATION OF SAMPLES

One-Meter Net Tows and Hardy Plankton Recorder

Analysis of the data taken with the 1-meter net and Hardy Plankton Recorder during this year was carried out in the same manner as that presented in the first report (Marak and Colton, 1961). Figures 1-4 show the locations of 1-meter net tows and tables 6-9 give the data collected. The locations of individual gauze sections exposed by the Hardy Plankton Recorder are shown in figures 5-12 and the data obtained from these sections are given in tables 10-13. The section equivalent varied slightly with individual recorders and among distances covered (see tables 14-17). Because of the loss of Hardy Plankton Recorders on cruise no. 57 and cruise no. 58, data are lacking for part of these cruises. Actual locations of 1-meter tows and reference gauze sections are given in tables 2-5.

Temperature and Salinity

Surface temperatures were used in the graphic presentation in this report as they were generally found to be indicative of temperatures in the depths of water studied (surface and 10 meters), Figures 13-16 show the distribution of surface temperature with observed values rounded off to the nearest whole ^oF. In areas of rapid temperature

change (southern and southeast edge of Georges Bank) some isotherms were omitted to avoid confusion. Figures 1-4 show the distribution of surface salinity with observed figures rounded off to the nearest 0.5 %. Actual temperature and salinity figures may be found in tables 2-5.

Drift Bottles

A detailed analysis of the data obtained from the drift bottles released on these cruises made during the spring of 1955 has been reported by Day (1958).

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1936. The continuous plankton recorder. Discovery Reports, vol. 11, p. 457-510.
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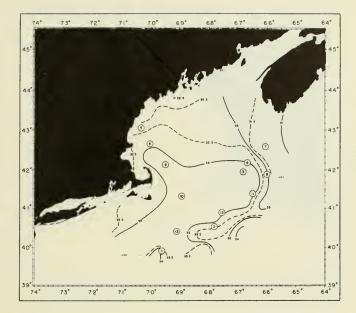


Figure 1.--Distribution of salinity and positions of 1-meter net tows, Albatross III cruise no. 57, February to March 2, 1955.

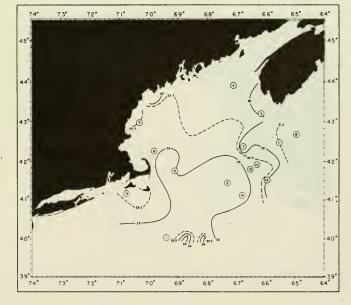


Figure 2.--Distribution of salinity and positions of 1-meter net tows,. Albamoss III cruise no. 58, March 19 to April 1, 1965.

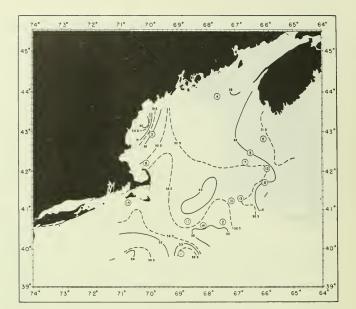


Figure 3.--Distribution of salinity and positions of 1-meter net tows, Albatross III cruise no. 60, April 19 to May 2, 1955.

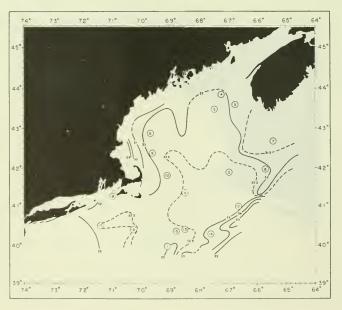


Figure 4.--Distribution of salinity and positions of 1-meter net tows, Albatross III cruise no. 61, May 16 to May 28, 1955.

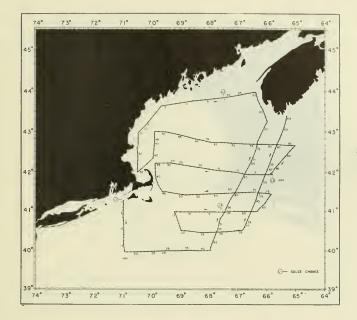


Figure 5.--Track of Albatross III cruise no. 57 (February 21 to March 2. 1955) giving positions for each gauze section of the surface Hardy Plankton Recorder.

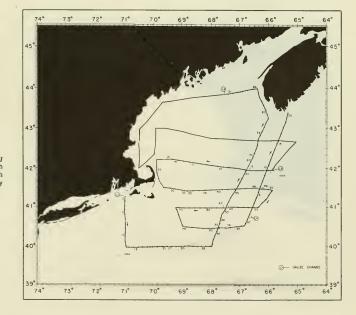


Figure 6.--Track of Albatross III cruise no. 57 (February 21 to March 2, 1955) giving positions for each gauze section of the 10-meter Hardy Plankton Recorder.

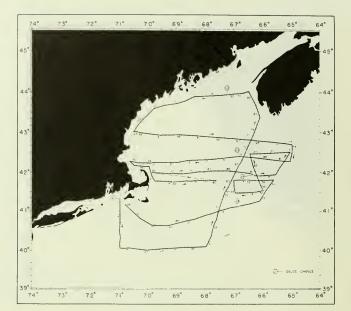


Figure 7.--Track of Albatross III cruise no. 58 (March 19 to April 1, 1955) giving positions for each gauze section of the surface Hardy Plankton Recorder.

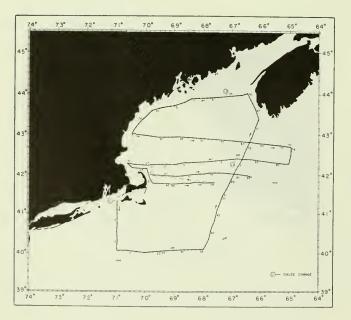


Figure 8, --Track of Albatross III cruise no, 58 (March 19 to April 1, 1955) giving positions for each gauze section of the 10-meter Hardy Plankton Recorder.

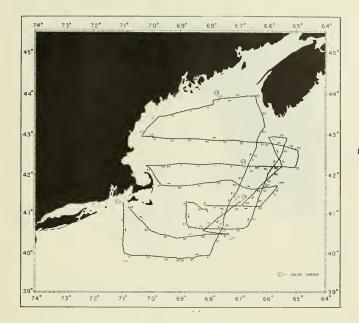


Figure 9,--Track of Albatross III cruise no. 60 (April 19 to May 2, 1955) giving positions for each gauze section of the surface Hardy Plankton Recorder.

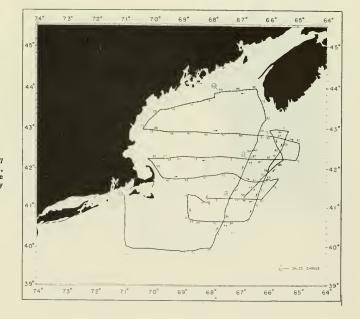


Figure 10,--Track of Albatross III cruise no. 60 (April 19 to May 2, 1955) giving positions for each gauze section of the 10-meter Hardy Plankton Recorder.

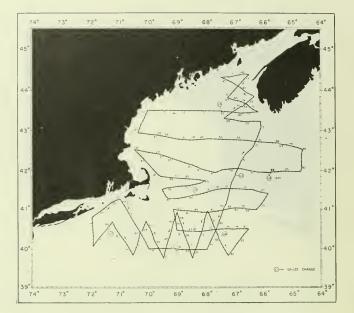


Figure 11.--Track of Albatross III cruise no. 61 (May 16 to May 28, 1955) giving positions for each gauze section of the surface Hardy Plankton Recorder.

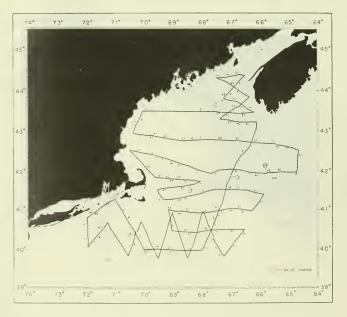


Figure 12.--Track of Albatross III cruise no. 61 (May 16 to May 28, 1955) giving positions for each gauze section of the 10-meter Hardy Plankton Recorder.

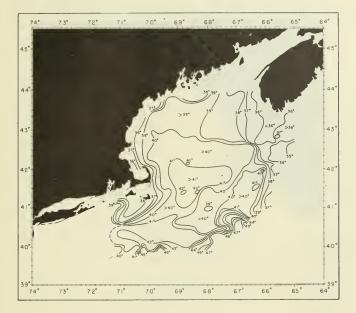


Figure 13.--Distribution of surface temperature, Albatrass III cruise no. 57, February 21 to March 2, 1955.

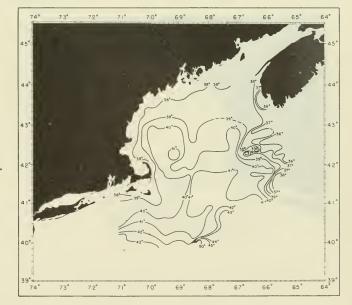


Figure 14.--Distribution of surface temperature. Albatross III cruise no. 58, March 19 to April 1, 1955.

73° 72° 74° 70° 69° 68° 67° 66° 65° 64° 42 40°-40 39° 39°≠= 74° 72° 67° 73° 69° 66° 68° 65°

Figure 15.--Distribution of surface temperature, *Albatross III* cruise no. 60, April 19 to May 2, 1955.

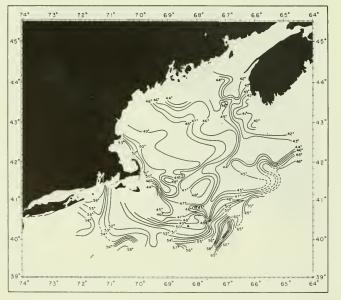


Figure 16,--Distribution of surface temperature, Albatross III cruise no. 61, May 16-28, 1955.

Table 1. --Species of fish eggs and larvae (with species code letters) caught during 1955, Albatross III cruise no. 57, February 21 - March 2; cruise no. 58, March 19 to April 1; cruise no. 60, April 19, to May 2; cruise no. 61. May 16 to May 28

| A American plaice Hippoglossoides platessoides Am American sand lance Ammodyles americanus C Atlantic cod Gadus morhua CN Cunner Tautogolabrus adspersus CU Cusk Brosme brosme E American eel Anguilla rostrata G Goosefish Lophius americanus H Haddock Melanogrammus aeglefinus HE Atlantic herring Clupea harengus harengus LP "Leptocephalus" stage M Atlantic menhaden Brevoortia tyrannus P Pollock Pollachius virens R Redfish Sebastes marinus RE Rock gunnel Pholis gunnellus RH Squirrel hake Urophycis chuss RO Fourbeard rockling Enchelyopus cimbrius SC Longhorn sculpin Myozocephalus octodecemspinosus SH Silver hake Mertuccious bilinearis SY Shanny Stichaeidae (Family) U Unidentified W Wrymouth Cryptacanthodes maculatus WE Weakfish Cynoscion regalis WF Witch flounder Glyptocephalus cynoglossus WH White hake Urophycis tenuis | es code ers | Common name | Scientific name |
|--|----------------|-----------------------|---------------------------------|
| C Atlantic cod Gadus morhua CN Cunner Tautogolabrus adspersus CU Cusk Brosme brosme E American eel Anguilla rostrata G Goosefish Lophius americanus H Haddock Melanogrammus aeglefinus HE Atlantic herring Clupea harengus harengus LP "Leptocephalus" stage M Atlantic mackerel Scomber scombrus MH Atlantic menhaden Brevoortia tyrannus P Pollock Pollachius virens R Redfish Sebastes marinus RE Rock gunnel Pholis gunnellus RH Squirrel hake Urophycis chuss RO Fourbeard rockling Enchelyopus cimbrius SH Silver hake Merluccious bilinearis SY Shanny Stichaeidae (Family) U Unidentified W Wrymouth Cryptacanthodes maculatus WE Weakfish Cynoscion regalis We Witch flounder Glyptocephalus cynoglossus | | American plaice | Hippoglossoides platessoides |
| CU Cusk Brosme brosme E American eel Anguilla rostrata G Goosefish Lophius americanus H Haddock Melanogrammus aeglefinus LP "Leptocephalus" stage M Atlantic herring Clupea harengus harengus LP "Leptocephalus" stage M Atlantic mackerel Scomber scombrus MH Atlantic menhaden Brevoortia tyrannus P Pollock Pollachius virens R Redfish Sebastes marinus RE Rock gunnel Pholis gunnellus RH Squirrel hake Urophycis chuss RO Fourbeard rockling Enchelyopus cimbrius SC Longhorn sculpin Myozocephalus octodecemspinosus SY Shanny Stichaeidae (Family) U Unidentified W Wrymouth Cryptacanthodes maculatus WE Weakfish Cynoscion regalis Witch flounder Glyptocephalus cynoglossus | | American sand lance | Ammodytes americanus |
| CU Cusk Brosme brosme E American eel Anguilla rostrata G Goosefish Lophius americanus H Haddock Melanogrammus aeglefinus HE Atlantic herring Clupea harengus harengus LP "Leptocephalus" stage M Atlantic mackerel Scomber scombrus MH Atlantic menhaden Brevaortia tyrannus P Pollock Pollachius virens R Redfish Sebastes marinus RE Rock gunnel Pholis gunnellus RH Squirrel hake Urophycis chuss RO Fourbeard rockling Enchelyopus cimbrius SC Longhorn sculpin Myozocephalus octodecemspinosus SH Silver hake Merluccious bilinearis SY Shanny Stichaeidae (Family) U Unidentified W Wrymouth Cryptacanthodes maculatus WE Weakfish Cynoscion regalis WF Witch flounder Glyptocephalus cynoglossus | | Atlantic cod | Gadus morhua |
| E American eel Anguilla rostrata G Goosefish Lophius americanus H Haddock Melanogrammus aeglefinus HE Atlantic herring Clupea harengus harengus LP "Leptocephalus" stage M Atlantic mackerel Scomber scombrus MH Atlantic menhaden Brevoortia tyrannus P Pollock Pollachius virens R Redfish Sebastes marinus RE Rock gunnel Pholis gunnellus RH Squirrel hake Urophycis chuss RO Fourbeard rockling Enchelyopus cimbrius SC Longhorn sculpin Myozocephalus octodecemspinosus SH Silver hake Merluccious bilinearis SY Shanny Stichaeidae (Family) U Unidentified W Wrymouth Cryptacanthodes maculatus WE Weakfish Cynoscion regalis WF Witch flounder Glyptocephalus cynoglossus | | Cunner | Tautogolabrus adspersus |
| G Goosefish Lophius americanus H Haddock Melanogrammus aeglefinus HE Atlantic herring Clupea harengus harengus LP "Leptocephalus" stage M Atlantic mackerel Scomber scombrus MH Atlantic menhaden Brevoortia tyrannus P Pollock Pollachius virens R Redfish Sebastes marinus RE Rock gunnel Pholis gunnellus RH Squirrel hake Urophycis chuss RO Fourbeard rockling Enchelyopus cimbrius SC Longhorn sculpin Myozocephalus octodecemspinosus SH Silver hake Merluccious bilinearis SY Shanny Stichaeidae (Family) U Unidentified W Wrymouth Cryptacanthodes maculatus WE Weakfish Cynoscion regalis WF Witch flounder Glyptocephalus cynoglossus | | Cusk | Brosme brosme |
| HE Atlantic herring Clupea harengus harengus LP "Leptocephalus" stage M Atlantic mackerel Scomber scombrus MH Atlantic menhaden Brevoortia tyrannus P Pollock Pollachius virens R Redfish Sebastes marinus RE Rock gunnel Pholis gunnellus RH Squirrel hake Urophycis chuss RO Fourbeard rockling Enchelyopus cimbrius SC Longhorn sculpin Myozocephalus octodecemspinosus SH Silver hake Merluccious bilinearis SY Shanny Stichaeidae (Family) U Unidentified W Wrymouth Cryptacanthodes maculatus WE Weakfish Cynoscion regalis Witch flounder Glyptocephalus cynoglossus | | American eel | Anguilla rostrata |
| HE Atlantic herring Clupea harengus harengus LP "Leptocephalus" stage M Atlantic mackerel Scomber scombrus MH Atlantic menhaden Brevoortia tyrannus P Pollock Pollachius virens R Redfish Sebastes marinus RE Rock gunnel Pholis gunnellus RH Squirrel hake Urophycis chuss RO Fourbeard rockling Enchelyopus cimbrius SC Longhorn sculpin Myozocephalus octodecemspinosus SH Silver hake Merluccious bilinearis SY Shanny Stichaeidae (Family) U Unidentified W Wrymouth Cryptacanthodes maculatus WE Weakfish Cynoscion regalis Witch flounder Glyptocephalus cynoglossus | | Goosefish | Lophius americanus |
| LP "Leptocephalus" stage M Atlantic mackerel Scomber scombrus MH Atlantic menhaden Brevoortia tyrannus P Pollock Pollachius virens R Redfish Sebastes marinus RE Rock gunnel Pholis gunnellus RH Squirrel hake Urophycis chuss RO Fourbeard rockling Enchelyopus cimbrius SC Longhorn sculpin Myozocephalus octodecemspinosus SH Silver hake Merluccious bilinearis SY Shanny Stichaeidae (Family) U Unidentified W Wrymouth Cryptacanthodes maculatus WE Weakfish Cynoscion regalis Witch flounder Glyptocephalus cynoglossus | | Haddock | Melanogrammus aeglefinus |
| MH Atlantic mackerel Scomber scombrus MH Atlantic menhaden Brevoortia tyrannus P Pollock Pollachius virens R Redfish Sebastes marinus RE Rock gunnel Pholis gunnellus RH Squirrel hake Urophycis chuss RO Fourbeard rockling Enchelyopus cimbrius SC Longhorn sculpin Myozocephalus octodecemspinosus SH Silver hake Merluccious bilinearis SY Shanny Stichaeidae (Family) U Unidentified W Wrymouth Cryptacanthodes maculatus WE Weakfish Cynoscion regalis Witch flounder Glyptocephalus cynoglossus | | Atlantic herring | Clupea harengus harengus |
| MH Atlantic menhaden Brevoortia tyrannus P Pollock Pollachius virens R Redfish Sebastes marinus RE Rock gunnel Pholis gunnellus RH Squirrel hake Urophycis chuss RO Fourbeard rockling Enchelyopus cimbrius SC Longhorn sculpin Myozocephalus octodecemspinosus SH Silver hake Merluccious bilinearis SY Shanny Stichaeidae (Family) U Unidentified W Wrymouth Cryptacanthodes maculatus WE Weakfish Cynoscion regalis WF Witch flounder Glyptocephalus cynoglossus | | "Leptocephalus" stage | |
| P Pollock Pollachius virens R Redfish Sebastes marinus RE Rock gunnel Pholis gunnellus RH Squirrel hake Urophycis chuss RO Fourbeard rockling Enchelyopus cimbrius SC Longhorn sculpin Myozocephalus octodecemspinosus SH Silver hake Merluccious bilinearis SY Shanny Stichaeidae (Family) U Unidentified W Wrymouth Cryptacanthodes maculatus WE Weakfish Cynoscion regalis WF Witch flounder Glyptocephalus cynoglossus | | Atlantic mackerel | Scomber scombrus |
| RE Rock gunnel Pholis gunnellus RH Squirrel hake Urophycis chuss RO Fourbeard rockling Enchelyopus cimbrius SC Longhorn sculpin Myozocephalus octodecemspinosus SH Silver hake Merluccious bilinearis SY Shanny Stichaeidae (Family) U Unidentified W Wrymouth Cryptacanthodes maculatus WE Weakfish Cynoscion regalis WF Witch flounder Glyptocephalus cynoglossus | | Atlantic menhaden | Brevoortia tyrannus |
| RE Rock gunnel Pholis gunnellus RH Squirrel hake Urophycis chuss RO Fourbeard rockling Enchelyopus cimbrius SC Longhotn sculpin Myozocephalus octodecemspinosus SH Silver hake Merluccious bilinearis SY Shanny Stichaeidae (Family) U Unidentified W Wrymouth Cryptacanthodes maculatus WE Weakfish Cynoscion regalis WF Witch flounder Glyptocephalus cynoglossus | | Pollock | Pollachius virens |
| RH Squirrel hake Urophycis chuss RO Fourbeard rockling Enchelyopus cimbrius SC Longhorn sculpin Myozocephalus octodecemspinosus SH Silver hake Merluccious bilinearis SY Shanny Stichaeidae (Family) U Unidentified W Wrymouth Cryptacanthodes maculatus WE Weakfish Cynoscion regalis WF Witch flounder Glyptocephalus cynoglossus | | Re dfish | Sebastes marinus |
| RO Fourbeard rockling Enchelyopus cimbrius SC Longhorn sculpin Myozocephalus octodecemspinosus SH Silver hake Merluccious bilinearis SY Shanny Stichaeidae (Family) U Unidentified W Wrymouth Cryptacanthodes maculatus WE Weakfish Cynoscion regalis WF Witch flounder Glyptocephalus cynoglossus | | Rock gunnel | Pholis gunnellus |
| SC Longhorn sculpin Myozocephalus octodecemspinosus SH Silver hake Merluccious bilinearis SY Shanny Stichaeidae (Family) U Unidentified W Wrymouth Cryptacanthodes maculatus WE Weakfish Cynoscion regalis WF Witch flounder Glyptocephalus cynoglossus | | Squirrel hake | Urophycis chuss |
| SH Silver hake Merluccious bilinearis SY Shanny Stichaeidae (Family) U Unidentified W Wrymouth Cryptacanthodes maculatus WE Weakfish Cynoscion regalis WF Witch flounder Glyptocephalus cynoglossus | | Fourbeard rockling | Enchelyopus cimbrius |
| SY Shanny Stichaeidae (Family) U Unidentified W Wrymouth Cryptacanthodes maculatus WE Weakfish Cynoscion regalis WF Witch flounder Glyptocephalus cynoglossus | | Longhorn sculpin | Myoxocephalus octodecemspinosus |
| U Unidentified W Wrymouth Cryptacanthodes maculatus WE Weakfish Cynoscion regalis WF Witch flounder Glyptocephalus cynoglossus | | Silver hake | Merluccious bilinearis |
| W Wrymouth Cryptacanthodes maculatus WE Weakfish Cynoscion regalis WF Witch flounder Glyptocephalus cynoglossus | | Shanny | Stichaeidae (Family) |
| WE Weakfish Cynoscion regalis WF Witch flounder Glyptocephalus cynoglossus | | Unidentified | |
| WF Witch flounder Glyptocephalus cynoglossus | | Wrymouth | Cryptacanthodes maculatus |
| | | Weakfish | Cynoscion regalis |
| WH White hake Urophycis tenuis | | Witch flounder | Glyptocephalus cynoglossus |
| | | White hake | Urophycis tenuis |
| WO Atlantic wolffish Anarhichas lupus | | Atlantic wolffish | Anarhichas lupus |
| Y Yellowtail flounder Limanda ferruginea | | Yellowtail flounder | Limanda ferruginea |

Table 2.--Date, time, and position for temperature and salinity records in relation to 1-meter tows and Hardy Plankton Recorder gauze sections Albatross III cruise no. 57, February 21 to March 2, 1955

| | | _ | | | | | Sur | face | 10- |
|--------------------|-------|----------------------|--------------------|---------|------------------|------------------|--------|---------------|---------------|
| _ | cm. | Lat- | Longi- | l-meter | Surface | 10-meter | | | meter |
| Date | Time | itude | tude W. | tow | gauze section | gauze section | Salin- | Tem- | tem- pera- |
| | | N. | *** | | Section | Section | ity | pera- ture | ture |
| | | | | | | | | ture | |
| | | | | | , ,, , | , | % | F. | °F. |
| - 1 04 | 1 500 | 41017 51 | 71° 00' | | loading l | loading l | 32. 30 | 36.0 | 35.0 |
| Feb. 21 | 1500 | 41°17.5° 41°06.8° | 71° 00' | | 3 | 3 | 32.30 | 39.5 | 39.3 |
| Feb. 21 Feb. 21 | 1700 | 41° 00'.8' | 71°01.2' | | 5 | 4 | 32,55 | 37.4 | 37.1 |
| Feb. 21 | 1800 | 40° 53' | 71°01.9' | | 6 | 5 | -~ | 37.6 | 37.5 |
| Feb. 21 | 1900 | 40° 40¹ | 71° 00' | | 9 | 7 | 32.54 | 36.5 | 36.5 |
| Feb. 21 | 2000 | 40°30,31 | 71° 00' | | 10 | 8 | | 41.0 | 39.9 |
| Feb. 21 | 2100 | 40° 21' | 71° 00' | | 12 | 10 | 33.12 | 42.3 | 41.9 |
| Feb. 21 | 2200 | 40°07.51 | 70° 591 | | 15 | 12 | | 41.7 | 41.8 |
| Feb. 21 | 2300 | 39° 58' | 70° 58' | | 17 | 13 | 33.11 | 41.8 | 42.6 |
| Feb. 21 | 2400 | 39° 581 | 70° 441 | | 19 | 14 | | 41.3 | 41.4 |
| Feb. 22 | 0100 | 39° 581 | 70°27.51 | | 21 | 16 | 33.47 | 41.2 | 43.2 |
| Feb. 22 | 0200 | 39°58.31 | 70° 15' 70° 05' | | 23 24 | 17 | 33.25 | 44.7 | 42.5 |
| Feb. 22 Feb. 22 | 0300 | 39°58.5' 39°59.5' | 69°52.5' | | 25 | 19 | | 42.4 | 42.4 |
| Feb. 22 | 0500 | 40° 00¹ | 69° 381 | 1 | 28 | 21 | 34. 19 | 46.6 | 46.4 |
| Feb. 22 | 0645 | 40° 00' | 69° 321 | | 29 | 27 | 33.72 | 44.2 | 44.6 |
| Feb. 22 | 0900 | 40° 00¹ | 69° 08' | | 32 | 29 | 33. 27 | 42.6 | 42.6 |
| Feb. 22 | 1005 | 40° 00' | 68° 57' | | 33 | 30 | | 41.8 | 41.8 |
| Feb. 22 | 1100 | 40° 01' | 68°43.5' | | 35 | 32 | 33.04 | 41.9 | 42.0 |
| Feb. 22 | 1200 | 40° 00' | 68° 301 | | 37 | 33 | | 44.5 | 44.6 |
| Feb. 22 | 1300 | 40° 00' | 68° 16' | | 40 | 35 | 33.77 | 45.2 | 48.2 |
| Feb. 22 | 1400 | 40° 00' | 68° 00' | | 42 | 37 | | 46.8 | 47.8 |
| Feb. 22 | 1500 | 40° 07' | 67° 58' | | 44 | 38 | 33.59 | 44.5 | 45.0 |
| Feb. 22 | 1600 | 40° 17' | 67° 531 | 2 | 46 | 40 41 | 33. 17 | 46.5 | 41.8 |
| Feb. 22 | 1700 | 40°25.2' 40°36.5' | | | 48 | 42 | 33.11 | 41.5 | 41.1 |
| Feb. 22 Feb. 22 | 1825 | 40° 51' | 67° 38' | | 53 | 49 | 32,99 | 41.2 | 41.1 |
| Feb. 22 | 2100 | 40°58.31 | | | 55 | 51 | | 41.3 | 41.2 |
| Feb. 22 | 2200 | 41°08.5' | 67°24.5' | | 56 | 52 | 33.03 | 40.7 | 40.5 |
| Feb. 22 | 2300 | 41°19.5 | 67°16.7' | | 58 | 54 | | 39.7 | 39.8 |
| Feb. 22 | 2400 | 41°27.5' | 67° 10' | | 60 | 56 | 33.27 | 39.7 | 40.0 |
| Feb. 23 | 0100 | 41°35.51 | 67° 04' | | 61 | 57 | | 40.0 | 40.1 |
| Feb. 23 | 0200 | 41°44.21 | 66° 58' | | 63 | 58 | 33.16 | 39.8 | 39.8 |
| Feb. 23 | 0300 | 41° 54' | 66°51.5' | 3 | 65 | 60 | | 40.1 | 40.2 |
| Feb. 23 | 0400 | 42° 04' | 66°44.21 | | 67 | 61 | 33.17 | 39.7 41.1 | 39.5 |
| Feb. 23 | 0500 | 42° 06' | 66°42.51 | 4 | 68 | 62 63 | 33.19 | 40.7 | 40.8 |
| Feb. 23 | 0600 | 42°13.5' 42° 26' | 66° 37' | | 69 | 71 | 32.66 | 39.8 | 39.8 |
| Feb. 23 Feb. 23 | 0800 | 42° 36' | 66°25.5' | | 74 | 73 | 32.00 | 40.0 | 39.9 |
| Feb. 23 | 1000 | 42° 46' | 66°22.5' | | 76 | 74 | 31.11 | 35.8 | 35.8 |
| Feb. 23 | 1100 | 42° 55' | 66°16.5' | | 78 | 7.5 | | 35.8 | 36.0 |
| Feb. 23 | 1200 | 43° 04' | 66°10.5 | | 80 | 77 | 31.31 | 36.4 | 36.2 |
| Feb. 23 | 1310 | 43°13.5 | | | 82 | 78 | | 35.9 | 35.9 |
| Feb. 23 | 1400 | 43°19.5' | 66°04.2 | | 83 | 79 | 31.26 | 35.9 | 36.0 |
| Feb. 23 | 1500 | 43°27.21 | | | 85 | 81 | | 35.6 | 35.7 |
| Feb. 23 | 1600 | 43° 351 | 66°12.3 | | 86 | 82 | 31.21 | 35.5 | 35.5 |
| Feb. 23 | 1700 | 43° 43' | 66°18.2' | | 88 | 83 | 21 50 | 35.9 | 36.0 |
| Feb. 23 | 1800 | 43°52.51 | | | 90 | 84 | 31.59 | 35.6 | 35.6 37.6 |
| Feb. 23 | 1900 | 43° 591 | 66° 32' | | 92 | 86 | | 37.5 | 31.0 |

Table 2. --Date, time, and position for temperature and salinity records in relation to 1-meter tows and Hardy Plankton Recorder gauze sections Albatross III cruise no. 57, February 21 to March 2, 1955--Continued

| | | | | | 6 6 | 10 | Sur | face | 10- |
|--------------------|--------------|----------------------|----------------------|----------------|-----------------------------|------------------------------|---------------|-----------------------|--------------------------------|
| Date | Time | Lat- itude N. | Longi- tude W. | l-meter tow | Surface gauze section | 10-meter gauze section | Salin- ity | Tem- pera- ture | meter tem- pera- ture |
| | | | | | | | | | |
| | | | | | | | %0 | °F. | \circ_F |
| Feb. 23 | 2000 | 43°58.2' | 66° 421 | | 93 | 87 | 31.80 | 38.1 | 38.2 |
| Feb. 23 | 2100 | 43°56.5' 43° 53' | 66°53.31 | | 95 | 88 90 | 21 02 | 38.5 | 38.5 |
| Feb. 23 | 2300 | 45 55 | 67°16.5' | | 98 loading 2 | loading 2 | 31.92 | 38.1 | 38.2 |
| Feb. 24 | 0130 | 43° 521 | 67° 27' | | 1 | | | 38.4 | 38.4 |
| Feb. 24 | 0400 | 43° 50' | 67°48.51 | | 3 | | 32, 34 | 39.6 | 39.6 |
| Feb. 24 | 0615 | 43° 481 | 68°14.5' | | 6 | | | 38.2 | 38.2 |
| Feb. 24 | 0815 | 43°45.2' | 68°44.51 | | 10 | | 32.71 | 38.3 | 38.3 |
| Feb. 24 | 0900 | 43°44.21 | 68°55.5' | | 11 | | | 38.8 | 38.8 |
| Feb. 24 | 1000 | 43°42.5' | 69° 081 | | 12 | | 32.79 | 39.5 | 39.6 |
| Feb. 24 | 1100 1200 | 43°40.5' 43°39.7' | 69°23.5' | | 14 15 | | 20 20 | 39.4 | 39.6 |
| Feb. 24 Feb. 24 | 1300 | 43°35.31 | 69°46.51 | | 17 | | 32.32 | 37.6 36.3 | 37.9 37.5 |
| Feb. 24 | 1400 | 43°26.81 | 69° 57' | | 18 | | 32.56 | 38.9 | 38.9 |
| Feb. 24 | 1500 | 43° 19' | 70° 061 | | 20 | | | 38.8 | 38.5 |
| Feb. 24 | 1600 | 43°10.31 | 70° 15' | | 21 | | 32, 26 | 38.1 | 38.7 |
| Feb. 24 | 1710 | 43°06.81 | 70° 20' | 5 | 23 | | 32.24 | 37.8 | 37.8 |
| Feb. 24 | 1900 | 42°50.5' | 70°30,2' | | 27 | | 32.83 | 38.4 | 38.6 |
| Feb. 24 | 2045 | 42°37.3' | 70° 321 | | 29 | | 32.45 | 37.8 | 38.0 |
| Feb. 24 | 2200 | 42° 301 | 70°31.5' | | 30 | | | 38.0 | 38.1 |
| Feb. 24 | 2300 | 42°21.3¹ | 70°31.5' | | 31 | | 32,50 | 36.9 | 37.1 |
| Feb. 24 Feb. 25 | 2400 0100 | 42° 06' 42°05.5' | 70°31.3' 70°23.8' | | 34 35 | | 32, 56 | 35.8 36.9 | 35.8 37.3 |
| Feb. 25 | 0200 | 42°12.2' | 70° 13' | | 37 | | 32.30 | 38.7 | 38.8 |
| Feb. 25 | 0305 | 42° 19' | 70° 03' | | 38 | | 33, 12 | 39.8 | 39.8 |
| Feb. 25 | 0405 | 42° 281 | 69° 591 | | 40 | | | 40.5 | 40.5 |
| Feb. 25 | 0500 | 42°36.3' | 69°57.51 | 6 | 41 | | 33.08 | 39.8 | 40.0 |
| Feb. 25 | 0600 | 42°46.31 | 69°56.51 | | 45 | | | 39.6 | 39.7 |
| Feb. 25 | 0805 | 43° 01' | 69° 56' | | 47 | | 32,92 | 39.8 | 39.8 |
| Feb. 25 | 0900 | 43°00.81 | 69°47.8' | | 48 | | | 39.6 | 39.6 |
| Feb. 25 Feb. 25 | 1000 1100 | 43°00.5° 42°58.7° | 69°34.2' 69°21.3' | | 50 52 | | 32.64 | 39.5 40.3 | 39.3 40.1 |
| Feb. 25 | 1200 | 42°54.3' | 69°09.51 | | 53 | | 32.91 | 40.3 | 40.1 |
| Feb. 25 | 1310 | 42° 54' | 68° 52' | | 56 | | | 39.6 | 39.7 |
| Feb. 25 | 1400 | 42°51.7' | 68°38.51 | | 58 | | 32.64 | 39.7 | 39.8 |
| Feb. 25 | 1500 | 42° 50' | 68° 28† | | 59 | | | 39.9 | 39.9 |
| Feb. 25 | 1610 | 42°47.8' | 68° 14' | | 61 | | 32.51 | 39.2 | 39.2 |
| Feb. 25 | 1700 | 42°45.5' | 68° 00' | | 63 | | | 39.0 | 39.1 |
| Feb. 25 | 1830 | 43°44.7' | 67°47.51 | | 65 | | 32.71 | 39.8 | 39.8 |
| Feb. 25 Feb. 25 | 2000 | 43° 45' 42°44.2' | 67°27.5' 67°12.3' | | 67 69 | | 32, 20 | 39.1 38.5 | 39.5 38.5 |
| Feb. 25 | 2200 | 42°43.3' | 66°59.2' | | 71 | | 32.20 | 39.1 | 39.2 |
| Feb. 25 | 2300 | 42° 431 | 66°43.2' | | 73 | | 32, 65 | 39.5 | 39.7 |
| Feb. 25 | 2400 | 42°42.31 | 66°32.5' | | 75 | | | 36.1 | 36.8 |
| Feb. 26 | 0100 | 42°42.4' | 66°19.5' | | 76 | | 31, 27 | 35.6 | 36.2 |
| Feb. 26 | 0200 | 42°42.4' | 66°04.5' | | 78 | | | 35.7 | 36.5 |
| Feb. 26 | 0230 | 42° 43¹ | 65°59.51 | 7 | 79 | | 31.15 | 36.0 | 36.7 |
| Feb. 26 | 0400 | 42°42.8¹ | 65° 431 | | 81 | | | 35.7 | 35.8 |
| Feb. 26 | 0500 | 42°42, 4' | 65°31.3' | | 82 | | 31.09 | 35.7 | 36.1 |

Table 2. --Date, time, and position for temperature and salinity records in relation to 1-meter tows and Hardy Plankton Recorder gauze sections Albatross III cruise no. 57, February 21 to March 2, 1955--Continued

| | | | | | <u> </u> | | | | |
|--------------------|--------------|----------------------|----------------------|---------|-----------|-------------------|--------|--------------|---------------|
| | | Lat- | Longi- | | Surface | 10 | Sur | face | 10- |
| Date | Time | itude | tude | l-meter | gauze | 10-meter gauze | | Tem- | meter tem- |
| | 111110 | N. | W. | tow | section | section | Salin- | pera- | pera- |
| | | | | | | | ity | ture | ture |
| - | | | | | | | | | |
| | | | | | | | % | °F. | °F. |
| Feb. 26 | 0600 | 42° 421 | 65° 201 | | 84 | | | 36.0 | 36.0 |
| Feb. 26 | 0700 | 42°41.5' | 65° 10' | | 85 | | 30.94 | 35.7 | 35.7 |
| Feb. 26 | 0755 | 42°37.8¹ | | | 88 | | 21 10 | 34.7 | 34.8 |
| Feb. 26 Feb. 26 | 0900 1000 | 42°30.5¹ 42° 23¹ | 65° 18' 65°26.5' | | 90 91 | | 31.16 | 34.9 | 34.9 |
| Feb. 26 | 1100 | 42°15.7' | 65°35.5¹ | | 93 | | | 35.5 | 35.6 |
| Feb. 26 | 1150 | 42°09.21 | | | 95 | | 31.44 | 36.9 | 37.1 |
| Feb. 26 | 1235 | 42°04.21 | 65° 49¹ | | 97 | | | 36.7 | 37.4 |
| - 1 00 | 1.400 | 44058 51 | 05050 51 | | loading 3 | loading 3 | 00.01 | 0= 0 | 000 |
| Feb. 26 Feb. 26 | 1420 1600 | 41°57.5' 41°57.5' | 65°50.51 66°07.71 | 8 | 3 | 1 2 | 32.01 | 37.9 | 38.3 |
| Feb. 26 | 1700 | 41°57.5' | | ~~ | 5 | 3 | 33. 12 | 40.5 | 40.5 |
| Feb. 26 | 1800 | 41°57.51 | 66°32.21 | | 6 | 4 | | 40.2 | 40.2 |
| Feb. 26 | 1900 | 41°57.5' | 66° 45' | | 8 | 5 | 33.27 | 40.9 | 41.0 |
| Feb. 26 | 2000 | 41° 59' | 66° 581 | | 10 | 6 | | 40.4 | 40.4 |
| Feb. 26 | 2100 | 42° 01' 42° 02' | 67°11.8' | | 12 | 8 | 33.31 | 40.9 | 41.0 |
| Feb. 26 Feb. 26 | 2200 2305 | 42°03.51 | 67°27.8' | | 13 16 | 9 | 33.39 | 41.4 | 41.6 |
| Feb. 27 | 0005 | 42° 05' | 68° 00' | | 18 | 12 | | 40.8 | 40.8 |
| Feb. 27 | 0100 | 42°06.51 | | | 20 | 13 | 33.10 | 40.4 | 40.6 |
| Feb. 27 | 0200 | 42° 08' | 68°27.5' | | 21 | 14 | | 40.7 | 40.6 |
| Feb. 27 | 0300 | 42°09.51 | 68°40.5¹ | | 23 | 15 | 33.92 | 40.0 | 40.0 |
| Feb. 27 Feb. 27 | 0400 0500 | 42°11.8' 42°12.7' | 68°54.2' 69° 08' | | 25 26 | 16 18 | 33.37 | 41.0 | 41.0 |
| Feb. 27 | 0605 | 42° 14' | 69° 221 | 9 | 32 | 21 | | 40.7 | 41.4 |
| Feb. 27 | 0800 | 42° 14' | 69°38.5' | | 34 | 22 | 33.21 | 40.4 | 40.5 |
| Feb. 27 | 1005 | 42° 13' | 69° 55' | | 37 | 23 | 32.97 | 39.3 | 39.3 |
| Feb. 27 | 1100 | 42° 03' | 69°54.5' | | 39 | 24 | | 37.8 | 38.0 |
| Feb. 27 | 1200 | 41° 53' 41°43.3' | 69°53.8¹ 69° 50¹ | | 40 | 25 | 32.76 | 38.7 | 38.7 |
| Feb. 27 Feb. 27 | 1300 1400 | 41°43.3' | 69°43.5' | | 42 43 | 26 27 | 32,89 | 39.2 | 39.2 |
| Feb. 27 | 1500 | 41°30.5' | 69°35.51 | | 45 | 28 | | 40.1 | 40.0 |
| Feb. 27 | 1600 | 41° 30' | 69°21.3' | ~- | 47 | 30 | 32.96 | 39.4 | 39.5 |
| Feb. 27 | 1705 | 41°27.5' | 69°05.51 | | 49 | 31 | | 41.2 | 41.2 |
| Feb. 27 | 1810 | 41° 26' | 68° 51' | 10 | 51 | 32 | 33. 29 | 41.8 | 41.7 |
| Feb. 27 Feb. 27 | 2000 2100 | 41°26.7' 41°27.2' | 68° 37' 68° 21' | | 53 55 | 35 37 | 33.25 | 41.7 | 41.7 |
| Feb. 27 | 2200 | 41*27.8 | 68°09.7' | | 57 | 38 | 33, 21 | 39.5 | 41.0 |
| Feb. 27 | 2300 | 41° 28' | 68° 00¹ | | 58 | 39 | | 39.4 | |
| Feb. 27 | 2400 | 41°28.3' | 67° 521 | | 59 | 39 | 33, 21 | 39.9 | 39.9 |
| Feb. 28 | 0100 | 41°28.5' | 67°44.5' | | 60 | 40 | | 40.4 | |
| Feb. 28 | 0210 | 41°28.8' | | | 62 | 41 | 33.28 | 40.3 | 40.1 |
| Feb. 28 Feb. 28 | 0300 0400 | 41°29.5' 41°29.7' | 67° 20' 67° 06' | | 63 65 | 42 | 33.19 | 40.1 | 40.1 |
| Feb. 28 | 0500 | 41° 30' | 66°45.5' | | 68 | 45 | 33.19 | 40.5 | 40.6 |
| Feb. 28 | 0640 | 41°29.5' | 66°23.5' | 11 | 71 | 46 | 33,00 | 40.8 | 41.0 |
| Feb. 28 | 0805 | 41° 28' | 66°02.31 | | 74 | 49 | 32.13 | 38.2 | 38.5 |
| Feb. 28 | 0900 | 41° 26† | 65°54.21 | | 77 | 50 | 31.82 | 37.5 | 37.4 |
| Feb. 28 Feb. 28 | 1000 1100 | 41°18.3' 41° 12' | 66° 021 66°09.21 | | 78 80 | 52 53 | 32,03 | 37.1 38.2 | |
| Teb. 20 | 1100 | 11 14, | 00 09.2 | | 00 | 30 | 02,00 | 00.2 | 1 |

Table 2.--Date, time, and position for temperature and salinity records in relation to 1-meter tows and Hardy Plankton Recorder gauze sections Albatross III cruise no. 57, February 21 to March 2, 1955--Continued

| | | Lat- | Longi- | | Surface | 10-meter | Sur | face | 10- |
|-------------------|--------------|----------------------|----------------------|----------------|------------------|------------------|-------------------|-----------------------|--------------------------------|
| Date | Time | itude N. | tude W. | l-meter tow | gauze section | gauze section | Salin- ity | Tem- pera- ture | meter tem- pera- ture |
| | | | | | | | °/∞ | | |
| Feb. 28 | 1200 | 41° 06' | 66° 191 | | 81 | 54 | $\frac{1}{32.31}$ | °F. 39.1 | °F. 39.3 |
| Feb. 28 | 1300 | 41° 01' | 66°28.2' | | 82 | 55 | | 38.8 | 39.1 |
| Feb. 28 | 1400 | 41° 01' | 66°41.8' | | 84 | 57 | 32,56 | 40.1 | 40.1 |
| Feb. 28 | 1500 | 41° 01' | 66° 54' | | 86 | 58 | | 39.9 | 40.0 |
| Feb. 28 | 1600 | 41° 01' | 67° 06' | | 87 | 59 | 32.83 | 40.8 | 40.8 |
| Feb. 28 | 1700 | 41° 01' | 67°18.5' | | 89 loading 4 | 60 | | 40.4 | 40.3 |
| Feb. 28 | 1755 | 41° 01' | 67°26.6' | 12 | 1 | 61 | 32.97 | 41.0 | 41.0 |
| Feb. 28 | 2000 | 41° 00' | 67°40.5' | | 3 | 63 | 33. 07 | 40.2 | 40.0 |
| Feb. 28 | 2105 | 41° 00' | 67°55.31 | | 4 | 64 | | 39.0 | 39.0 |
| Feb. 28 | 2200 | 41° 00' | 68° 04' | | 6 | 65 | 33.17 | 39.2 | 39.0 |
| Feb. 28 | 2300 | 41° 00' | 68° 14' | | 7 | 66 | | 39.5 | 39.6 |
| Feb. 28 Mar. 1 | 2400 0100 | 41° 00' 41° CO' | 68° 321 68° 461 | | 9 11 | 67 69 | 33.21 | 40.4 | 40.3 |
| Mar. 1 | 0200 | 41° 00' | 69°01.5' | | 13 | 70 | 33.17 | 40.9 | 41.0 |
| Mar. 1 | 0305 | 40°55.71 | 69° 11' | | 15 | 72 | | 40.5 | 40.8 |
| Mar. 1 | 0405 | 40° 49' | 69° 081 | | 16 | 72 | 33.25 | 41.5 | 41.5 |
| Mar. 1 | 0505 | 40° 39' | 69°03.51 | | 18 | 74 | | 40.0 | 40.1 |
| Mar. 1 | 0610 | 40° 31' | 69° 001 | 13 | 20 | 75 | 33.09 | 41.0 | 41.0 |
| Mar. 1 | 0800 | 40°29.8' | 68°43.51 | | 21 | 76 | | 41.2 | 41.1 |
| Mar. 1 Mar. 1 | 0900 1000 | 40°29.5¹ 40°28.2¹ | 68° 31' | | 23 24 | 77 78 | 32.55 | 40.8 39.6 | 41.6 |
| Mar. 1 | 1100 | 40°28.5' | 68°04.8' | | 26 | 80 | 32.01 | 39.4 | 39.4 |
| Mar. 1 | 1200 | 40°29.71 | 67°48.5' | | 29 | 81 | | 39.4 | 39.4 |
| Mar. 1 | 1300 | 40°29.8' | 67°36.5' | | 30 | 82 | 32.12 | 41.9 | 42.0 |
| Mar. 1 | 1405 | 40° 30' | 67°25.8' | | 31 | 83 | | 39.5 | 39.6 |
| Mar. 1 | 1500 | 40° 31' | 67° 16' | | 32 | 84 | 32, 48 | 40.9 | 40.8 |
| Mar. 1 Mar. 1 | 1600 1700 | 40° 32¹ 40° 33¹ | 67°05.5' 66°51.8' | | 34 | 85 | 34.03 | 47.1 46.4 | 47.2 |
| Mar. 1 | 1805 | 40°41.8' | 66° 46¹ | | 37 | 86 87 | 34.03 | 49.0 | 48.7 |
| 11101. 1 | 1000 | 10 11.0 | 00 10 | | " | loading 4 | | 40.0 | 40.1 |
| Mar. 1 | 2005 | 40°54.5¹ | 66°39.51 | | 41 | 2 | 32.44 | 40.4 | 40.5 |
| Mar. 1 | 2105 | 41° 04' | 66° 341 | | 42 | 3 | | 40.3 | 40.4 |
| Mar. 1 | 2200 | 41°13.8' | 66° 281 | | 44 | 4 | 33.02 | 40.7 | 40.8 |
| Mar. 1 Mar. 1 | 2305 2400 | 41°22.5' 41° 28' | 66°23.5' | | 46 47 | 5 6 | 33.03 | 40.6 | 40.7 |
| Mar. 2 | 0100 | 41° 38' | 66° 16' | | 49 | 7 | 33.03 | 40.8 | 40.7 |
| Mar. 2 | 0200 | 41°47.5' | 66°10.5' | | 50 | 8 | 33, 06 | 40.3 | 40.4 |
| Mar. 2 | 0300 | 41°57.5' | 66° 06' | | 52 | 9 | | 41.1 | 41.1 |
| Mar. 2 | 0405 | 42°06.8' | 66° 001 | | 54 | 11 | 32.21 | 38.8 | 38.9 |
| Mar. 2 | 0505 | 42°16.2' | 65°55.3' | | 56 | 12 | | 35.8 | 35.9 |
| Mar. 2 | 0605 | 42° 26' 42°37.5' | 65° 50' 65° 44' | | 57 | 13 | 31.30 | 35.8 | 35.9 |
| Mar. 2 Mar. 2 | 0715 0800 | 42°42.5' | 65°41.5' | | 59 60 | 14 15 | 31.15 | 35.7 36.7 | 35.7 |
| Mar. 2 | 0905 | 42°50.8' | 65°36.2' | | 62 | 16 | 31.13 | 36.8 | 37.1 |
| Mar. 2 | 1005 | 43° 01' | 65° 31' | | 64 | 17 | 31.07 | 36.6 | 36.5 |
| Mar. 2 | 1100 | 43°10.8' | 65°25.8' | | 66 | 19 | | 35.5 | 35.6 |
| Mar. 2 | 1200 | 43° 21' | 65° 231 | | 68 | 20 | 31.00 | 3 5. 9 | 35.9 |
| | | | | | | l | | | |

Table 3, --Date, time, and position for temperature and salinity records in relation to 1-meter tows and Hardy Plankton Recorder gauze sections Albatross III cruise no. 58, March 19 to April 1, 1955

| | | Lat- | Longi- | l-meter | Surface | 10-meter | Surf | ace | 10- meter |
|--------------------|--------------|----------------------|----------------------|---------|-----------|-----------|----------------|---------------|---------------|
| Date | Time | itude | tude | tow | gauze | gauze | Salin- | Tem- | tem- |
| | | N. | W. | | section | section | ity | pera- ture | pera- ture |
| | | | | | | | | ture | - Care |
| | | | | | loading l | loading l | 0/ | °F. | °F. |
| Mar. 19 | 1000 | 41°17.5 | 71° 00' | | 1 | l l | % 32.28 | 37.6 | 37.7 |
| Mar. 19 | 1100 | 41° 10' | 71° 00' | | 2 | 2 | | 38.7 | 38.1 |
| Mar. 19 | 1200 | 41° 00' | 71° 00' | | 4 | 4 | 32.56 | 39.5 | 39.4 |
| Mar. 19 Mar. 19 | 1300 1400 | 40°48.51 40° 401 | 70°59.5' | | 6 7 | 5 | | 39.7 | 39.7 |
| Mar. 19 | 1500 | 40°28.81 | 71°00.81 | | 9 | 6 8 | 32.83 | 39.7 39.4 | 39.8 |
| Mar. 19 | 1600 | 40° 17' | 70° 591 | | 11 | 10 | 33.11 | 41.6 | 41.5 |
| Mar. 19 | 1700 | 40°07.51 | 71° 00' | | 12 | 11 | | 43.7 | 43.7 |
| Mar. 19 | 1800 | 40° 01' | 70°52.2' | | 14 | 13 | 33.24 | 43.1 | 43.2 |
| Mar. 19 Mar. 19 | 1905 2000 | 40°01.5' 40°00.5' | 70°40.5¹ 70°22.5¹ | | 15 | 14 | 22 17 | 42.9 | 42.8 |
| Mar. 19 | 2105 | 39°58.21 | 70° 02' | | 18 20 | 16 18 | 33, 17 | 43.0 43.2 | 43.1 |
| Mar. 19 | 2210 | 39°59.51 | 69°49.5' | | 22 | 20 | 33.13 | 42.4 | 42.7 |
| Mar. 19 | 2300 | 40° 001 | 69°39.31 | | 23 | 21 | | 42.0 | 42.3 |
| Mar. 19 | 2400 | 40° 01' | 69°28.21 | 1 | 24 | 22 | 33.19 | 41.7 | 41.8 |
| Mar. 20 Mar. 20 | 0200 | 40°01.7' 40°02.2' | 69°12.5' 68° 58' | | 28 | 26 | 33.12 | 42.0 | 42.0 |
| Mar. 20 | 0400 | 40°02.21 | 68° 431 | | 31 33 | 28 30 | 34, 96 | 42.0 41.5 | 42.0 |
| Mar. 20 | 0510 | 40°02.91 | 68°35.51 | | 34 | 31 | | 41.1 | 41.1 |
| Mar. 20 | 0600 | 40°03.11 | 68° 30' | | 34 | 32 | 33.48 | 43.7 | 43.7 |
| Mar. 20 | 07 05 | 40°03.3¹ | 68° 23' | | 35 | 33 | | 51.3 | 51.4 |
| Mar. 20 Mar. 20 | 0805 0905 | 40°03.7' 40°04.2' | 68° 10' 67°58.5' | | 37 39 | 34 | 33.95 33.25 | 45.9 43.3 | 48.0 |
| Mar. 20 | 1000 | 40° 12' | 67°52.5' | | 40 | 37 | | 43.4 | 43.5 |
| Mar. 20 | 1100 | 40°21.3' | 67° 471 | | 42 | 38 | 32.90 | 42.1 | 42.2 |
| Mar. 20 | 1200 | 40°30.41 | 67°44.5' | | 44 | 40 | | 42.2 | 41.6 |
| Mar. 20 Mar. 20 | 1300 1400 | 40° 391 40° 46,21 | 67°41.8' | | 45 47 | 41 | 32.95 | 42.7 | 42.5 |
| Mar. 20 | 1500 | 40°55.81 | 67°34.51 | | 49 | 43 | 33. 19 | 43.0 42.2 | 41.2 |
| Mar. 20 | 1600 | 41°05.7' | 67° 31' | | 51 | 46 | | 41.7 | 41.0 |
| Mar. 20 | 1700 | 41°15.8' | 67°25.91 | | 53 | 48 | 33. 31 | 41.0 | 41.0 |
| Mar. 20 | 1800 | 41°26.2' | 67° 21' | 2 | 55 | 50 | | 41.1 | 41.2 |
| Mar. 20 Mar. 20 | 2005 | 41°39.6' 41° 49' | 67°10.2' 67°03.8' | | 59 61 | 62 65 | 33. 28 | 41.1 | 41.2 |
| Mar. 20 | 2205 | 42° 00° | 66°57.21 | | 63 | 67 | 33. 13 | 40.7 | 40.7 |
| Mar. 20 | 2300 | 42°08.31 | 66°51.2' | | 64 | 68 | | 39.0 | 39.2 |
| Mar. 20 | 2400 | 42° 181 | 66°43.9' | | 66 | 70 | 31.71 | 36.9 | 36.9 |
| Mar. 21 | 0100 | 42°37.5' 42°33.6' | 66°37.31 | | 68 | 72 | 33.32 | 38.0 | 38.0 |
| Mar. 21 Mar. 21 | 0200 | 42°43.5' | 66°27.81 | | 69 71 | 74 75 | 31.80 | 37.1 37.6 | 36.9 |
| Mar. 21 | 0405 | 42°51.8' | 66°22.71 | | 73 | 77 | 31.00 | 36.5 | 36.7 |
| Mar. 21 | 0500 | 43° 00' | 66°17.8' | | 74 | 78 | 32.17 | 38.4 | 39.6 |
| Mar. 21 | 0600 | 43°08.7' | 66°13.21 | 3 | 76 | 80 | | 38.0 | 38.1 |
| Mar. 21 | 0800 | 43° 20' 43° 25' | 66°06.81 | | 78 | 82 | 31.65 | 37.3 | 37.6 |
| Mar. 21 Mar. 21 | 1000 | 43° 25' 43° 30' | 66° 08' 66°10'.2' | | 79 80 | 83 | 31.77 | 35.4 35.4 | 35.7 |
| Mar. 21 | 1100 | 43°36,51 | 66° 14' | | 82 | 85 | | 35.6 | 35.7 |
| Mar. 21 | 1200 | 43°43.61 | 66°19.7' | | 84 | 87 | 31.55 | 35.6 | 35.6 |
| Mar. 21 | 1300 | 43° 50¹ | 66°24.4' | | 85 | 88 | | 37.6 | 37.5 |
| Mar. 21 | 1400 | 43°58.7' | 66° 30' | | 87 | 90 | 32.20 | 38.1 | 38.0 |

Table 3. --Date, time, and position for temperature and salinity records in relation to 1-meter tows and Hardy Plankton Recorder gauze sections Albatross III cruise no. 58, March 19 to April 1, 1955--Continued

| | | | | | | | Surf | ace | 10- |
|--------------------|--------------|----------------------|----------------------|---------|------------------|-------------------|--------|--------------|---------------|
| Date | Time | Lat- itude | Longi- tude | l-meter | Surface gauze | 10-meter gauze | | Tem- | meter tem- |
| Date | 111110 | N. | W. | tow | section | section | Salin- | pera- | pera- |
| | | | | | | | ity | ture | ture |
| | | | | | | | | 1 | |
| | | | | | | | % | °F. | °F. |
| Mar. 21 | 1500 | 43°56.7' | | | 89 | 92 | | 38.4 | 38.4 |
| Mar. 21 | 1600 | 43° 561 | 66°54.71 | | 91 loading 2 | 94 loading 2 | 32.15 | 38.4 | 38.4 |
| Mar. 21 | 1700 | 43°55,41 | 67° 091 | 4 | 1 | 1 | 32.39 | 38.5 | 38.5 |
| Mar. 21 | 1900 | 43°54.41 | 67°15.81 | | 2 | 1 | | 38.3 | 38.4 |
| Mar. 21 | 2000 | 43°53.7' | 67°29.51 | | 3 | 3 | 31.97 | 38.1 | 38.3 |
| Mar. 21 | 2100 | 43°52.8' | 67°42.2' | | 5 | 5 | | 37.9 | 38.0 |
| Mar. 21 Mar. 21 | 2200 | 43° 52' 43°51.5' | 68°03.5' 68°14.7' | | 7 9 | 8 9 | 32.30 | 38.6 38.2 | 38.6 |
| Mar. 21 | 2400 | 43°50.31 | 68° 27' | | 10 | 11 | 32.21 | 38.2 | 38.5 |
| Mar. 22 | 0100 | 43°44.5' | 68°43.81 | | 13 | 13 | | 38.2 | 38.2 |
| Mar. 22 | 0200 | 43°42.41 | 68°52.51 | | 14 | 14 | 32.32 | 37.4 | 37.5 |
| Mar. 22 | 0300 | 43°39.81 | | | 16 | 16 | | 37.6 | 37.6 |
| Mar. 22 Mar. 22 | 0400 0500 | 43°38.4¹ 43° 36¹ | 69° 22¹ 69° 36¹ | | 18 19 | 18 20 | 32, 48 | 38.1 | 38.1 |
| Mar. 22 | 0600 | 43°33.71 | 69° 491 | | 21 | 22 | 31.78 | 38.1 37.6 | 38.4 |
| Mar. 22 | 0700 | 43°26.21 | 69°59.51 | | 23 | 24 | | 37.8 | 37.9 |
| Mar. 22 | 0800 | 43° 21' | 70°06.51 | | 24 | 25 | 32.56 | 38.7 | 38.8 |
| Mar. 22 | 0900 | 43°14.3' | 70°15.81 | | 26 | 27 | | 38.1 | 38.2 |
| Mar. 22 | 1000 | 43° 061 | 70°25.7' | | 28 | 29 | 32.42 | 38.0 | 38.1 |
| Mar. 22 | 1100 | 42°59.4° | 70° 281 70° 221 | 5 | 29 | 30 | | 38.0 | 38.1 |
| Mar. 23 Mar. 23 | 1300 | 42°58.81 | 70° 22' | | 35 35 | 34 | 32.63 | 39.0 39.6 | 39.0 39.6 |
| Mar. 23 | 1500 | 42°56.81 | 70° 00' | | 37 | 36 | 32,81 | 39.8 | 39.9 |
| Mar. 23 | 1600 | 42°55.41 | 69°46.41 | | 39 | 38 | | 39.6 | 39.7 |
| Mar. 23 | 1700 | 42°54.61 | 69°32.91 | | 40 | 39 | 32.75 | 40.2 | 40.2 |
| Mar. 23 | 1800 | 42°54.5¹ | 69°20.21 | | 42 | 41 | | 40.6 | 40.6 |
| Mar. 23 Mar. 23 | 1900 | 42° 55¹ 42° 55¹ | 69°06.3' 68°52.8' | | 43 | 42 | 32.72 | 40.1 | 40.1 |
| Mar. 23 | 2100 | 42°54.31 | | | 45 47 | 44 46 | 32, 19 | 39.6 38.7 | 39.7 |
| Mar. 23 | 2205 | 42°53.71 | 68°24.2' | | 49 | 47 | | 39.0 | 39.0 |
| Mar. 23 | 2300 | 42° 531 | 68°11.5' | ~- | 50 | 49 | 32.36 | 39.3 | 39.5 |
| Mar. 23 | 2400 | 42°52.61 | 67° 581 | | 52 | 51 | | 39.6 | 39.6 |
| Mar. 24 | 0100 | 42°51.9' | 67° 35¹ | | 55 | 53 | 32.56 | 39.7 | 39.8 |
| Mar. 24 Mar. 24 | 0200 | 42°50.8° 42°50.2° | 67° 30' 67°16.3' | | 55 57 | 54 55 | 32.94 | 39.5 | 39.5 |
| Mar. 24 | 0415 | 42°49.21 | 66°58.21 | | 59 | 58 | 34.94 | 40.3 39.8 | 39.7 |
| Mar. 24 | 0500 | 42°48.61 | 66° 491 | | 60 | 59 | 32,50 | 39.4 | 39.4 |
| Mar. 24 | 0600 | 42°47.81 | 66° 371 | | 62 | 60 | ~ ~ | 37.2 | 37.4 |
| Mar. 24 | 07 00 | 42°47.51 | 66°23.21 | | 63 | 62 | 31.67 | 37.4 | 37.4 |
| Mar. 24 | 0800 | 42° 461 | 66°11.2' | | 65 | 64 | 04 24 | 37.3 | 37.1 |
| Mar. 24 Mar. 24 | 1000 | 42°45.2¹ 42°44.3¹ | 65°55.71 65°42.21 | | 67 | 65 67 | 31.71 | 37.6 | 37.6 |
| Mar. 24 | 1100 | 42°44.3° | 65°28.41 | no | 70 | 68 | 31.27 | 35.7 35.5 | 35.4 |
| Mar. 24 | 1200 | 42°42.41 | 65°14.1' | | 71 | 70 | | 35.5 | 35.3 |
| Mar. 24 | 1300 | 42°40.51 | 64°59.51 | 6 | 75 | 72 | 31.40 | 35.5 | 35.5 |
| Mar. 24 | 1500 | 42° 291 | 64° 591 | | 76 | 76 | | 35,5 | 35.5 |
| Mar. 24 | 1600 | 42°17.81 | | | 79 | 77 | 31.25 | 35.4 | 35.4 |
| Mar. 24 | 1700 | 42-15,6 | 65°13.5' | m on | 80 | 79 | | 35,5 | 35.8 |

Table 3, --Date, time, and position for temperature and salinity records in relation to 1-meter tows and Hardy Plankton Recorder gauze sections Albatross III cruise no. 58, March 19 to April 1, 1955--Continued

| | | Lat- | Longi- | | Surface | 10-meter | Sur | face | 10- meter |
|--------------------|--------------|----------------------|----------------------|---------|------------------|-----------|--------|--------------|--------------|
| Date | Time | itude | tude | l-meter | gauze | gauze | G V | Tem- | tem- |
| | | N. | W. | tow | section | section | Salin- | pera- | pera- |
| | | | | | | | ity | ture | ture |
| | | | | | | | | | |
| | | | | | | | % | °F. | °F. |
| Mar. 24 | 1800 | 42°16.4' | 65°27,21 | | 82 | 80 | | | |
| Mar. 24 | 1900 | 42° 18' | 65° 41' | | 83 | 82 | 31.51 | 35.9 35.6 | 35.8 35.7 |
| Mar. 24 | 2000 | 42°19.2' | 65° 55' | | 85 | 83 | 31.87 | 37.5 | 37.4 |
| Mar. 24 | 2100 | 42°20.3¹ | 66°08.81 | | 87 | 85 | | 36.4 | 36.4 |
| Mar. 24 | 2200 | 42°21.5' | 66° 23' | | 88 | 86 | 32.32 | 39.1 | 39.1 |
| Mar. 24 | 2300 | 42° 221 | 66°35.31 | | 90 | 88 | | 38.3 | 38.2 |
| | | | | | loading 3 | loading 3 | | | |
| Mar. 25 | 0115 | 42°22.51 | 66°49.5' | 7 | 1 | 1 | 31.82 | 37.8 | 37.8 |
| Mar. 25 | 0205 | 42° 221 | 66°57.5' | | 2 | 2 | ~ ~ | 38.0 | 38.5 |
| Mar. 25 | 0300 | 42° 21' | 67° 10' | | 4 | 3 | 32.85 | 40.5 | 40.7 |
| Mar. 25 | 0400 | 42°20.3' | 67°20.51 | | 5 | 5 | | 40.0 | 40.1 |
| Mar. 25 | 0500 | 42°19.8' | 67°31.5' | | 7 | 6 | 32.61 | 40.0 | 40.0 |
| Mar. 25 | 0555 | 42°18.7' | 67°41.8' | | 8 | 7 | | 39.8 | 39.9 |
| Mar. 25 | 07 05 | 42° 18' | 67°52.2' | | 9 | 9 | 32.84 | 39.9 | 39.9 |
| Mar. 25 | 0800 | 42°17.8' | 68°01.5' | | 11 | 10 | | 39.9 | 39.9 |
| Mar. 25 | 1000 | 42°17.3' | 68°19.3' | | 13 | 12 | 32.83 | 40.1 | 40.2 |
| Mar. 25 | 1200 | 42°16.1' | 68° 40' | | 16 | 15 | 32.61 | 39.5 | 39.5 |
| Mar. 25 | 1400 | 42°13.6' 42°13.4' | 69°02.51 | | 19 | 18 | 32.98 | 40.9 | 40.8 |
| Mar. 25 Mar. 25 | 1600 1700 | 42°13.4' | 69°26.4' 69°39.8' | | 22 24 | 21 22 | 33. 04 | 40.8 | 40.8 |
| Mar. 25 | 1800 | 42 13.2 | 69° 53¹ | 8 | 26 | 25 | 32.89 | 40.6 40.4 | 40.6 |
| Mar. 25 | 2000 | 42° 13' | 70°10.4' | | 28 | 27 | 32.09 | 38.5 | 38.6 |
| Mar. 25 | 2100 | 42°13.5' | 70°23.2' | | 29 | 29 | 32,38 | 38.3 | 38.3 |
| Mar. 25 | 2205 | 42° 15' | 70° 401 | na na | 32 | 31 | | 37.9 | 37.9 |
| Mar. 25 | 2300 | 42°08.51 | 70° 291 | | 33 | 33 | 32.30 | 38.2 | 38.3 |
| Mar. 25 | 2400 | 42°07.71 | 70°16.31 | | 35 | 34 | | 38.1 | 38.2 |
| Mar. 26 | 0100 | 42°07.31 | 70°01.91 | | 36 | 36 | 32.60 | 39.0 | 38.9 |
| Mar. 26 | 0200 | 41°57.61 | 69°54.21 | | 39 | 39 | | 38.7 | 38.7 |
| Mar. 26 | 0300 | 41°44.51 | 69° 501 | | 41 | 41 | 33.03 | 39.5 | 39.5 |
| Mar. 26 | 0400 | 41°44.6 | 69°38.51 | | 41 | 41 | | 39.4 | 39.6 |
| Mar. 26 | 0500 | 41°44.3' | 69° 261 | | 43 | 43 | | 40.4 | 40.4 |
| Mar. 26 | 0600 | 41°44.2' | 69°12.3' | 9 | 45 | 45 | | 40.4 | 40.6 |
| Mar. 26 | 0800 | 41°44.5' | 68°52.5' | | 51 | 50 | 32.89 | 40.5 | 40.7 |
| Mar. 26 | 0900 | 41°45.3' | 68°40.71 | | 52 | 51 | 00.01 | 40.1 | 40.1 41.5 |
| Mar. 26 Mar. 26 | 1000 1100 | 41° 45' 41°46.5' | 68°28.7' 68°13.5' | | 5 4 56 | 52 54 | 33.21 | 41.3 41.3 | 41.6 |
| Mar. 26 | 1200 | 41°45.7 | 68°01.5¹ | | 57 | 55 | 33, 24 | 41.4 | 41.5 |
| Mar. 26 | 1300 | 41° 46' | 67°48.21 | | 59 | 57 | 33.24 | 40.9 | 40.9 |
| Mar. 29 | 0400 | 41.57.71 | 69°48.51 | | 65 | 62 | 32.98 | 40.2 | 40.2 |
| Mar. 29 | 0515 | 41° 57' | 69°31.8' | | 67 | 64 | | 40.3 | 40.3 |
| Mar. 29 | 0600 | 41°56.6' | 69°21.7' | | 68 | 65 | 33. 17 | 39.8 | 39.6 |
| Mar. 29 | 07 05 | 41°56.3' | 69°06.21 | | 70 | 66 | | 39.7 | 39.8 |
| Mar. 29 | 0805 | 41°56.2' | 68° 521 | | 72 | 68 | 32.74 | 39.8 | 39.8 |
| Mar. 29 | 0900 | 41°56.6' | 68°40.21 | | 74 | 69 | | 39.5 | 39.4 |
| Mar. 29 | 1000 | 41° 58¹ | 68° 281 | | 75 | 70 | 32.80 | 40.0 | 40.0 |
| Mar. 29 | 1100 | 41°58.8' | 68° 161 | | 77 | 71 | | 40.3 | 40.3 |
| Mar. 29 | 1200 | 41°59.5 | 68°01.8' | | 79 | 73 | 32.97 | 40.6 | 40.4 |
| Mar. 29 | 1300 | 42° 01' | 67°48.8° | | 80 | 74 | | 40.7 | 40.7 |
| Mar. 29 | 1400 | 42° 01' | 67° 331 | | 82 | 76 | 33.05 | 40.4 | 40.4 |

Table 3, --Date, time, and position for temperature and salinity records in relation to 1-meter tows and Hardy Plankton Recorder gauze sections Albatross III cruise no. 58, March 19 to April 1, 1955--Continued

| | | , | | | | | | | |
|--------------------|--------------|----------------------|----------------------|---------|-----------|----------|--------|--------------|--------------|
| | | Lat- | Longi- | | Surface | 10-meter | Sur | face | 10- meter |
| Date | Time | itude | tude | 1-meter | gauze | gauze | G 1: | Tem- | tem- |
| | | N. | W. | tow | section | section | Salin- | pera- | pera- |
| | | | | | | | ity | ture | ture |
| | | | | | | | | | |
| | | | | | | | %。 | °F. | °F. |
| Mar. 29 | 1500 | 42° 011 | 67°19.21 | | 84 | 78 | /00 | 40.4 | 40.4 |
| Mar. 29 | 1600 | 42°00.31 | 67°05.21 | | 86 | 79 | 33.03 | 40.4 | 40.5 |
| Mar. 29 | 1700 | 41°58.31 | 66°49.21 | | 88 | 80 | | 40.6 | 40.8 |
| Mar. 29 | 1800 | 41°57.5' | 66°34.3 | | 90 | 82 | 32.89 | 40.2 | 40.3 |
| Mar. 29 | 1900 | 41°55.4' | 66°20.31 | 10 | 91 | 83 | | 39.9 | 40.1 |
| | | | | | loading 4 | | | | |
| Mar. 29 | 2100 | 41°53.6' | 66°06.41 | | 2 | | 32.83 | 40.2 | 40.3 |
| Mar. 29 | 2200 | 41° 54' | 65° 51' | au 24 | 4 | | | 39.9 | 39.9 |
| Mar. 29 | 2300 | 41°54.7' | 65° 401 | | 6 | | 32, 31 | 38.7 | 39.1 |
| Mar. 29 Mar. 30 | 2400 0100 | 41°57.8' 42°07.3' | 65°30.51' 65° 231 | | 7 9 | | 21 50 | 37.3 | 37.2 |
| Mar. 30 | 0200 | 42°15.8! | 65°14.7¹ | | 11 | | 31.50 | 35.7 35.5 | 35.7 35.5 |
| Mar. 30 | 0300 | 42° 24' | 65° 081 | | 13 | | 31, 44 | 35.4 | 35.5 |
| Mar. 30 | 0400 | 42°29,51 | 65°04.41 | | 15 | | 31.44 | 35.5 | 35.5 |
| Mar. 30 | 0500 | 42°28.81 | 65°14.8' | | 17 | | 31.35 | 35.5 | 35.5 |
| Mar. 30 | 0600 | 42° 281 | 65°28.51 | 11 | 19 | | | 35.8 | 35.8 |
| Mar. 30 | 0630 | 42°27.81 | 65°35.21 | | 20 | | 31.52 | 35.9 | 35.9 |
| Mar. 30 | 0755 | 42°27.61 | 65°48.21 | | 21 | | | 36.4 | 36.4 |
| Mar. 30 | 0905 | 42° 27' | 66° 031 | | 24 | | 31.62 | 36.7 | 37.1 |
| Mar. 30 | 1005 | 42°26.4' | 66° 17' | | 25 | | | 37.2 | 37.6 |
| Mar. 30 | 1100 | 42°24.5' | 66°26.71 | | 27 | | 32.06 | 38.3 | 38.1 |
| Mar. 30 | 1200 | 42° 16' | 66°23.21 | | 29 | | | 38.6 | 38.5 |
| Mar. 30 | 1255 | 42° 08' | 66° 201 | | 30 | | 32, 31 | 39.1 | 39.3 |
| Mar. 30 | 1400 | 41°56.3' 41° 48' | 66°13.81 | | 33 | | | 40.5 | 40.6 |
| Mar. 30 Mar. 30 | 1500 1600 | 41°40.2' | 66°09.4' | | 34 35 | | 32.74 | 40.3 39.9 | 40.3 |
| Mar. 30 | 1700 | 41°32.3 | 66°00.3 | 12 | 38 | | 32. 18 | 38.8 | 38.9 |
| Mar. 30 | 1900 | 41° 29' | 66° 14' | | 39 | | 32.10 | 39.5 | 39.7 |
| Mar. 30 | 2000 | 41°28.61 | 66° 24' | | 41 | | 32,88 | 40.7 | 40.7 |
| Mar. 30 | 2100 | 41°27.7' | 66°37.21 | | 42 | | | 40.5 | 40.5 |
| Mar. 30 | 2200 | 41°27.31 | 66° 49¹ | | 44 | | 33.13 | 40.6 | 40.7 |
| Mar. 30 | 2300 | 41° 31' | 66°58.51 | | 45 | | | 40.6 | 40.6 |
| Mar. 30 | 2400 | 41°39.8' | 67°00.21 | | 47 | | 33.08 | 40.5 | 40.5 |
| Mar. 31 | 0100 | 41° 47' | 66° 55' | | 49 | | | 40.3 | 40.3 |
| Mar. 31 | 0200 | 41°46.8¹ | 66° 42' | | 50 | | 32.94 | 40.7 | 40.4 |
| Mar. 31 | 0300 | 41° 471 | 66° 34¹ | 13 | 51 | | 22 76 | 40.0 | 40.0 |
| Mar. 31 Mar. 31 | 0400 0500 | 41°46.5' 41°46.6' | 66° 21' 66°05.7' | | 53 55 | | 32.76 | 40.2 | 40.4 |
| Mar. 31 | 0600 | 41° 471 | 65°51.8' | | 57 | | 32.75 | 40.2 40.2 | 40.2 |
| Mar. 31 | 07 00 | 41° 47' | 65°39.71 | | 59 | | 32, 13 | 36.4 | 38.6 |
| Mar. 31 | 0800 | 41° 43' | 65° 41' | | 60 | | 31, 52 | 35.5 | 35.5 |
| Mar. 31 | 0900 | 41°35.3' | 65°48.71 | | 62 | | | 35.9 | 35.9 |
| Mar. 31 | 1000 | 41°27.5' | 65°56,21 | | 63 | | 31.73 | 36.9 | 36.9 |
| Mar. 31 | 1100 | 41°18.2' | 66° 04' | | 65 | | | 38.9 | 38.6 |
| Mar. 31 | 1200 | 41° 13' | 66° 15' | | 67 | | 32.68 | 40.7 | 40.6 |
| Mar. 31 | 1300 | 41°10.3' | 66°28.51 | | 6,9 | | | 41.3 | 41.6 |
| Mar. 31 | 1400 | 41°08.8' | 66° 401 | | 70 | | 33.08 | 41.4 | 41.3 |
| | 4.500 | 44800 | | | loading 5 | | | | |
| Mar. 31 | 1520 | 41°06.4 | 66°50.31 | 14 | 1 | | | 41.2 | 41.1 |
| Mar. 31 | 1600 | 41°05.5 | 00, 28, | | 2 | | 33.19 | 40.8 | 40.8 |

Table 3, --Date, time, and position for temperature and salinity records in relation to 1-meter tows and Hardy Plankton Recorder gauze sections Albatross III cruise no. 58, March 19 to April 1, 1955--Continued

| | | Lat- | Longi | | Surface | 10-meter | Surfa | ace | 10- |
|--|--|--|---|---------|---|------------------|---|--|---|
| Date | Time | itude N. | Longi- tude W. | l-meter | gauze section | gauze section | Salin- ity | Tem- pera- ture | meter tem- pera- ture |
| Mar. 31 Apr. 1 | 1700 1800 1900 2000 2100 2200 2300 2400 0100 0200 0300 0400 0500 0605 0700 0800 0900 1000 1055 1155 1300 | 41°04.3' 41°02.4' 41°00.4' 40° 58' 40° 54.5' 40° 49' 40° 46' 40° 42.2' 40° 40.2' 40° 37' 40° 37.5' 40° 37.5' 40° 48' 40° 48' 40° 48' 40° 48' 40° 48' 40° 48' 40° 48' 40° 48' 40° 00.5' 40° 00.5' 41° 09' | 67° 09' 67° 19' 67° 29.2' 67° 39.5' 67° 500' 68°01.8' 68°13.5' 68° 25' 68° 37.6' 68° 37.6' 69° 13.4' 69° 23.4' 69° 23.4' 69° 23.4' 69° 42.5' 69° 42.5' 69° 42.5' 70° 18' 70° 18' 70° 28' 70° 37.8' 70° 48.5' | 15 | 3 5 6 8 9 11 12 14 15 17 19 20 21 23 24 26 27 29 31 33 34 | | 33.29 33.30 33.19 33.22 33.19 32.85 32.66 32.48 32.41 | °F. 41.1 41.0 41.1 40.9 40.6 40.8 41.0 40.7 40.2 40.1 39.8 39.8 39.8 39.9 38.9 38.9 38.9 | °F. 41.1 41.3 41.3 40.7 40.6 40.8 41.0 40.9 41.1 40.6 40.3 39.9 39.3 39.7 39.5 40.5 |

Table 4. --Date, time, and position for temperature and salinity records in relation to 1-meter tows and Hardy Plankton Recorder gauze sections Albatross III cruise no. 60, April 19 to May 2, 1955

| | | | | | | | | | , |
|--------------------|--------------|---------------------|--------------------|---------|-----------|-----------|--------|-------|-------|
| | | | | | | | Sur | face | 10- |
| | | Lat- | Longi- | | Surface | 10-meter | | | meter |
| Date | Time | itude | tude | l-meter | gauze | gauze | G 11 | Tem- | tem- |
| | | N. | W. | tow | section | section | Salin- | pera- | pera- |
| | | | | | | | ity | ture | ture |
| | | | | | | | | | |
| | | | | | | | % | | |
| | | | | | loading l | loading l | 00 | °F. | °F. |
| Apr. 19 | 1300 | 41°16.5' | 71° 01' | | 1 | | 32.08 | 42.7 | 42.7 |
| Apr. 19 | 1400 | 41° 091 | 71° 021 | | 2 | | | 42.0 | 42.1 |
| Apr. 19 | 1500 | 41°00.5' | 71°01.5' | | 3 | | 32.38 | 41.8 | 41.8 |
| Apr. 19 | 1600 | 40° 51' | 71° 01' | | 5 | | | 42.0 | 41.8 |
| Apr. 19 | 1700 | 40°42.21 | 71°01.3' | | 6 | | 32.53 | 41.9 | 42.0 |
| Apr. 19 | 1800 | 40° 321 | 71°00.81 | | 8 | | | 43.2 | 43.0 |
| Apr. 19 | 1900 | 40° 21' | 71° 00' | | 10 | | 33.11 | 43.4 | 43.4 |
| Apr. 19 | 2000 | 40°11.5' | 70°59.51 | | 12 | | | 45.8 | 45.7 |
| Apr. 19 | 2100 | 40° 01' | 70°56.7' | | 14 | | 33.44 | 45.8 | 46.0 |
| Apr. 19 | 2200 | 39°56.71 | 70° 44' | | 15 | | | 44.8 | 44.7 |
| Apr. 19 | 2300 | 39° 57' | 70°37.51 | | 16 | | 33.97 | 48.3 | 48.3 |
| Apr. 19 | 2400 | 39°57.21 | 70° 20' | | 18 | | | 47.4 | 47.4 |
| Apr. 20 | 0100 | 39° 581 | 70° 11' | | 20 | | 33.46 | 48.7 | 49.0 |
| Apr. 20 | 0200 | 39° 561 | 69° 531 | | 22 | | 33.39 | 42.7 | 46.6 |
| Apr. 20 | 0300 | 39°55.51 | 69° 331 | | 23 | | 33.38 | 44.8 | 44.8 |
| Apr. 20 Apr. 20 | 0500 | 39° 541 | 69° 21' | | 26 | | 32.75 | 42.3 | 42.6 |
| Apr. 20 Apr. 20 | 0600 | 39° 541 | 69° 11' | | 27 | | 32.13 | 45.9 | 45.9 |
| Apr. 20 Apr. 20 | 0800 | 39°53.51 | 68° 57' | 1 | 32 | 17 | 33.76 | 46.7 | 46.5 |
| Apr. 20 | 0900 | 39° 541 | 68°47.51 | | 33 | 18 | | 46.5 | 46.6 |
| Apr. 20 | 1005 | 39°54.51 | 68°34.5' | | 35 | 20 | 33, 58 | 46.6 | 46.7 |
| Apr. 20 | 1115 | 39°57.51 | 68° 221 | | 37 | 22 | | 46.3 | 46.5 |
| Apr. 20 | 1200 | 39° 581 | 68°14.5' | | 38 | 23 | 32, 21 | 41.3 | 41.4 |
| Apr. 20 | 1300 | 39°59.31 | 68° 01' | | 40 | 25 | | 41.2 | 40.0 |
| Apr. 20 | 1400 | 40° 081 | 67° 56' | | 42 | 27 | 31.91 | 39.7 | 39.7 |
| Apr. 20 | 1500 | 40°16' | 67° 51' | | 44 | 29 | | 41.0 | 40.9 |
| Apr. 20 | 1600 | 40°22.5' | 67°46.5' | | 47 | 30 | 32.11 | 41.3 | 40.7 |
| Apr. 20 | 1700 | 40° 31' | 67° 41' | 2 | 49 | 32 | | 40.9 | 40.7 |
| Apr. 20 | 1830 | 40°43.51 | 67°33.81 | | 51 | 34 | 32.25 | 41.5 | |
| Apr. 20 | 2000 | 40° 57' | 67°30.5' | | 53 | 38 | | 42.1 | 41.9 |
| Apr. 20 | 2100 | 41° 07' | 67° 27' | | 55 | 40 | 32.30 | 41.6 | 41.6 |
| Apr. 20 | 2200 | 41° 18' | 67°19.5' | | 57 | 43 | | 41.0 | 41.1 |
| Apr. 20 | 2300 | 41°27.5¹ | 67° 12' | | 59 | 45 | 32.83 | 41.9 | 41.9 |
| Apr. 20 | 2355 0100 | 41° 36' 41°44.5' | 67° 06' 67° 05' | | 61 | 47 49 | 32.79 | 41.8 | 41.8 |
| Apr. 21 Apr. 21 | 0200 | 41° 53' | 66°55.5' | | 65 | 51 | 34.19 | 41.7 | 41.7 |
| Apr. 21 | 0300 | 42° 02¹ | 66° 50' | | 66 | 53 | 32.84 | 41.9 | 41.9 |
| Apr. 21 | 0410 | 42° 12' | 66° 44' | | 69 | 55 | | 41.6 | 42.1 |
| Apr. 21 | 0500 | 42° 19' | 66* 391 | | 70 | 56 | 32.19 | 40.8 | 40.9 |
| Apr. 21 | 0625 | 42° 27' | 66° 331 | 3 | 73 | 60 | | 41.2 | 41.1 |
| Apr. 21 | 0800 | 42° 431 | 66° 25' | | 76 | 63 | 31,55 | 38.3 | 37.8 |
| Apr. 21 | 0900 | 42°54.51 | 66°22.51 | | 78 | 65 | | 38.8 | 38.7 |
| Apr. 21 | 1000 | 43° 05' | 66° 171 | | 80 | 67 | 31.76 | 39.5 | 38.8 |
| Apr. 21 | 1100 | 43° 131 | 66°07.51 | | 82 | 69 | | 38.8 | 38.7 |
| Apr. 21 | 1200 | 43°18.3' | 66°04.2' | | 83 | 71 | 31.39 | 38.8 | 38.4 |
| Apr. 21 | 1300 | 43°27.51 | 66°10.31 | | 84 | 72 | | 39.1 | 39.1 |
| Apr. 21 | 1400 | 43° 351 | 66° 14' | | 86 | 74 | 31.55 | 39.3 | 39.2 |
| Apr. 21 | 1455 | 43° 41' | 66°18.2' | | 87 | 75 | | 40.3 | 39.8 |
| Apr. 21 | 1600 | 43° 50' | 66° 25' | | 89 | 77 | 31.64 | 39.7 | 39.5 |
| Apr. 21 | 1700 | 44° 001 | 66°27.8' | | 91 | 79 | | 39.9 | 39.6 |
| | | | | | | | | | |

Table 4. --Date, time, and position for temperature and salinity records in relation to 1-meter tows and Hardy Plankton Recorder gauze sections Albatross III cruise no. 60, April 19 to May 2, 1955--Continued

| | | | | | G . f | | Surf | ace | 10- |
|---|--|--|--|----------------|---|---|---|--|---|
| Date | Time | itude N. | tude W. | l-meter tow | gauze section | gauze section | Salin- ity | Tem- pera- ture | meter tem- pera- ture |
| Apr. 21 Apr. 21 Apr. 21 Apr. 21 Apr. 21 Apr. 22 | 1800 1900 2005 2105 2320 0140 0300 0400 0500 0600 0700 0805 1105 1205 1205 1200 1400 1500 1600 1810 1925 2200 | N. 43° 59' 43° 58' 43° 56' 43° 54.5' 43° 440' 43° 36' 43° 36' 43° 36' 43° 31.5' 43° 38.5' 43° 11.5' 43° 128.5' 43° 15.5' 42° 56.2' 42° 56' 42° 56' 42° 56' | W. 66° 42' 66° 56.5' 67° 10' 67° 24' 67° 44' 67° 59' 68° 16.2' 68° 29' 68° 55.3' 69° 10' 69° 23' 69° 35.5' 69° 50.7' 70° 01.3' 70° 12' 70° 17.3' 70° 23.5' 70° 92.2' 69° 37' 69° 24' 69° 15' 69° 02.1' 68° 47.5' | 4 | 93 95 96 98 loading 2 1 4 7 9 10 12 14 16 18 19 21 23 25 26 27 29 32 34 35 37 | 82 84 86 88 loading 2 1 4 7 9 10 12 14 16 17 19 21 23 24 26 27 30 33 35 36 38 40 | 32.29 31.97 32.30 32.19 32.31 32.10 32.46 31.72 29.60 30.58 32.02 32.72 32.41 | °F. 40.2 39.2 40.6 41.4 41.5 40.2 41.3 41.2 40.1 42.3 42.4 41.9 42.5 43.2 44.0 41.9 42.5 43.2 44.0 41.9 42.5 43.2 44.0 | Perature °F. 40.2 39.1 40.6 41.3 41.5 40.2 41.3 40.2 41.3 40.2 41.4 42.7 41.0 42.2 39.9 41.9 40.9 40.9 42.1 42.5 42.1 40.8 |
| Apr. 22 Apr. 23 Apr. 23 | 2300 2400 0120 0140 0300 0400 0600 0705 1010 1105 1205 1300 1400 1500 1700 1800 2000 2110 | 42°55.5' 42°54.5' 42°54.5' 42°53.8' 42°53.3' 42°52.4' 42°50.5' 42°50.5' 42°49' 42°44.2' 42°44.2' 42°39.7' 42°15.7' 42°15.7' 42°15.7' | 68* 34' 68° 21' 68° 03' 67° 58' 67° 40.5' 67° 25' 67° 12' 66° 42' 66° 42' 66° 16' 66° 08.3' 65° 54.5' 65° 26' 65° 13' 64° 59' 64° 58.3' 65° 10.5' 65° 12.2' 66° 02' | 6 | 41 43 45 46 48 50 52 54 56 60 61 63 64 66 68 70 71 73 77 79 80 83 | 42 44 46 47 49 51 53 54 57 59 61 62 63 64 66 68 70 72 74 76 79 80 82 | 32.34 -32.32 32.32 32.05 -31.72 -31.88 31.97 -31.42 -31.17 -31.59 -131.34 | 41.4 41.2 41.2 41.2 40.5 41.0 39.6 39.2 39.2 39.4 39.7 39.4 39.7 39.4 38.5 37.2 37.2 37.2 | 41. 4 41. 2 41. 1 40. 8 40. 2 41. 0 39. 9 38. 5 38. 9 39. 0 39. 1 39. 5 38. 9 39. 5 38. 2 36. 6 37. 0 38. 3 41. 2 |

Table 4, --Date, time, and position for temperature and salinity records in relation to 1-meter tows and Hardy Plankton Recorder gauze sections Albatross III cruise no. 60, April 19 to May 2, 1955--Continued

| | | r | | , | | 1 | | | |
|--------------------|--------------|----------------------|---------------------|---------|-----------|-----------|--------|---------------|--------------|
| | | | | | | | Suri | ace | 10- |
| | | Lat- | Longi- | 1-meter | Surface | 10-meter | | | meter |
| Date | Time | itude | tude | tow | gauze | gauze | Salin- | Tem- | tem- |
| | | N. | W. | | section | section | ity | pera- | pera- |
| | | | | | | | 1 | ture | ture |
| | | | | | | | | | |
| | | | | | | | % | $^{\circ}F$. | °F. |
| Apr. 23 | 2205 | 42°15.51 | 66° 161 | | 85 | 84 | 32.44 | 41.5 | 41.5 |
| Apr. 23 | 2305 | 42° 16' | 66°31.2' | | 86 | 86 | 52, 44 | 41.7 | 41.5 |
| 11p1. 50 | 2000 | 12 10 | 00 01.2 | | loading 3 | loading 3 | | 11.1 | 11.0 |
| Apr. 24 | 0200 | 42*15.8 | 66°45.71 | 7 | 1 | 1 | 32,66 | 41.6 | 41.0 |
| Apr. 24 | 0300 | 42°15.81 | 66°51.81 | | 2 | 2 | | 41.5 | 41.8 |
| Apr. 24 | 0400 | 42°16.71 | 67°06.21 | | 4 | 4 | 32,26 | 41.8 | 41.5 |
| Apr. 24 | 0500 | 42°17.1' | 67°19.5' | | 6 | 5 | | 41.4 | 40.6 |
| Apr. 24 | 0600 | 42° 18' | 67°33.4' | | 8 | 7 | 32.31 | 41.0 | 40.7 |
| Apr. 24 | 0700 | 42°18.7' | 67° 48' | | 10 | 9 | | 41.6 | 41.5 |
| Apr. 24 | 0810 | 42°17.8' | 68°04.2' | | 12 | 11 | 32.32 | 41.8 | 41.3 |
| Apr. 24 | 0900 | 42°16.3' | 68°15.5' | | 14 | 13 | | 41.9 | 41.2 |
| Apr. 24 | 1005 | 42°17.4' | 68°30.51 | | 16 | 15 | 32,51 | 41.1 | 40.7 |
| Apr. 24 | 1105 | 42°18.1' 42°18.5' | 68° 47' 69°03.5' | | 19 | 17 | 20 50 | 43.2 | 42.2 |
| Apr. 24 Apr. 24 | 1210 1310 | 42°17.5' | 69°15.4' | | 21 23 | 20 | 32.56 | 43.4 | 42.6 42.5 |
| Apr. 24 | 1400 | 42°16.5' | 69° 261 | | 24 | 23 | 32.09 | 42.9 | 42.6 |
| Apr. 24 | 1530 | 42° 15' | 69°53.51 | | 31 | 29 | 32.03 | 43.0 | 42.9 |
| Apr. 24 | 1625 | 42° 10' | 70° 07' | 8 | 35 | 33 | | 43.1 | 41.2 |
| Apr. 27 | 1300 | 42° 16¹ | 69° 36' | | 29 | 27 | | 42.0 | |
| Apr. 27 | 1550 | 42°14,2' | 70° 12' | | 34 | 32 | 32, 55 | 40.2 | 40.2 |
| Apr. 27 | 1700 | 42°10,51 | 70°06.51 | | 35 | 34 | | 40.6 | 40.6 |
| Apr. 27 | 1800 | 42°01.9 | 69°57.1' | | 37 | 35 | 32.25 | 40.8 | 40.8 |
| Apr. 27 | 1905 | 41°51.8¹ | 69°47.51 | | 39 | 37 | | 41.3 | 41.2 |
| Apr. 27 | 2000 | 41°44.5' | 69° 381 | | 40 | 39 | 32.30 | 41.4 | 41.3 |
| Apr. 27 | 2100 | 41° 44' | 69° 241 | | 42 | 40 | | 42.0 | 42.0 |
| Apr. 27 | 2200 | 41°43.5' | 69°10.6' | | 44 | 42 | 32.59 | 42.0 | 41.9 |
| Apr. 27 | 2305 | 41° 44' | 68° 55¹ | | 46 | 44 | | 42.2 | 41.8 |
| Apr. 27 | 2400 | 41° 46' 41°47.8' | 68° 45¹ 68°28.2¹ | | 47 | 45 | 32.70 | 42.2 | 41.9 |
| Apr. 28 Apr. 28 | 0118 | 41°48.71 | 68°18.71 | | 49 50 | 48 49 | 32.75 | 42.6 42.3 | 42.4 |
| Apr. 28 | 0300 | 41°50.4 | 68°04.6¹ | | 52 | 51 | 32.13 | 42.6 | 41.9 |
| Apr. 28 | 0400 | 41°51.8' | 67°51.5° | | 54 | 52 | 32,97 | 42.6 | 42.6 |
| Apr. 28 | 0500 | 41°53.8' | 67°34.61 | | 56 | 55 | | 43.2 | 43.2 |
| Apr. 28 | 0600 | 41°54.4' | 67° 21' | | 57 | 56 | 32.86 | 43.0 | 43.2 |
| Apr. 28 | 0700 | 41°51.2' | 67°09.21 | | 59 | 58 | | 42.7 | 42.8. |
| Apr. 28 | 0800 | 41° 441 | 66*55.51 | | 61 | 61 | 32.84 | 42.3 | 42.3 |
| Apr. 28 | 0905 | 41°41.6' | 66*41.21 | | 62 | 62 | | 42.6 | 42.6 |
| Apr. 28 | 1000 | 41°40.8' | 66°29.81 | | 64 | 64 | 32.74 | 42.2 | 42.1 |
| Apr. 28 | 1110 | 41°41.8' | 66°15.3¹ | | 66 | 66 | | 43.1 | 42.2 |
| Apr. 28 | 1240 | 41°44.5' | 66°06.51 | 9 | 67 | 67 | 31.95 | 40.6 | 39.8 |
| Apr. 28 | 1400 | 41° 46¹ | 65°50.7' | | 71 | 71 | 21 05 | 37.4 | 37.4 |
| Apr. 28 | 1500 | 41°45.2° 41° 35° | 65° 431 | | 72 75 | 72 75 | 31.95 | 39.3 | 40.0 |
| Apr. 28 Apr. 28 | 1600 1700 | 41°27.4' | 65° 54' 66°02.2' | | 77 | 75 | 32.24 | 39.1 | 38.1 |
| Apr. 28 | 1800 | 41°20.2' | 66°10.2' | | 78 | 79 | 32.24 | 39.0 | 39.5 |
| Apr. 28 | 1900 | 41°14.5' | 66°18.8' | | 81 | 81 | 31, 36 | 39.8 | 39.3 |
| Apr. 28 | 2000 | 41°14.2 | 66°31.4' | | 82 | 82 | | 39.2 | 39.5 |
| Apr. 28 | 2100 | 41° 14' | 66°44.61 | | 84 | 84 | 32.27 | 42.9 | 41.4 |
| Apr. 28 | 2200 | 41°15.1' | | | 86 | 86 | | 41.9 | 41.8 |
| • | 1 | | | | 1 | | l | | 1 |

Table 4, --Date, time, and position for temperature and salinity records in relation to 1-meter tows and Hardy Plankton Recorder gauze sections Albatross III cruise no. 60, April 19 to May 2, 1955--Continued

| | | | | | | | Surf | ace | 10- |
|--------------------|--------------|----------------------|----------------------|----------------|-----------------------------|------------------------------|---------------|---------------|------------------------|
| Date | Time | Lat- itude N. | Longi- tude W. | l-meter tow | Surface gauze section | 10-meter gauze section | Salin- ity | Tem- pera- | meter tem- pera- |
| Apr. 20 | 0020 | 41°14.2' | 67°14.8! | 10 | loading 4 | loading 4 | °/ 32.56 | °F. | °F. 42.1 |
| Apr. 29 Apr. 29 | 0300 | 41°14.3' | 67° 33¹ | | 3 | 3 | 32, 30 | 42.1 | 42.8 |
| Apr. 29 | 0400 | 41°15.4' | 67°49.51 | | 5 | 5 | 32, 45 | 41.9 | 41.9 |
| Apr. 29 | 0500 | 41°16.5' | 68° 04' | | 7 | 8 | | 42.4 | 42.4 |
| Apr. 29 | 0905 | 41°09.5' | 68° 081 | | 9 | 9 | 32.99 | 43.3 | 43.3 |
| Apr. 29 | 0955 | 41°08.21 | 68°17.7' | | 10 | 10 | | 43.3 | 43.3 |
| Apr. 29 | 1115 | 41°13.8' | 68°26.21 | | 11 | 12 | 32.95 | 42.9 | 42.9 |
| Apr. 29 | 1300 | 41°19.3' | 68°42.21 | | 14 | 14 | | 42.0 | 42.1 |
| Apr. 29 | 1400 | 41°14.31 | 68°50.21 | | 15 | 16 | 32.97 | 41.6 | 41.3 |
| Apr. 29 | 1500 | 41°08.31 | 68° 50¹ | | 16 | 17 | | 42.7 | 42.6 |
| Apr. 29 | 1600 | 41°01.8' | 68°49.31 | | 17 | 18 | 33.12 | 43.0 | 42.8 |
| Apr. 29 | 1700 | 40°57.21 | 68°49.4' | | 18 | 19 | | 43.3 | 43.2 |
| Apr. 29 | 1800 | 40°48.3' | 68°48.51 | 11 | 20 | 20 | 32.82 | 42.9 | 42.5 |
| Apr. 30 | 1210 | 40°40.7' | 68°30.4' | | 23 | 24 | 32.57 | 42.6 | 42.4 |
| Apr. 30 | 1300 | 40° 40' | 68° 24' | | 24 | 25 | | 42.2 | 42.1 |
| Apr. 30 | 1400 | 40°39.5¹ 40°39.5¹ | 68°16.3' | | 25 27 | 26 28 | 32. 22 | 43.3 | 43.3 |
| Apr. 30 Apr. 30 | 1500 1600 | 40°39.5' | 67°53.5' | | 28 | 30 | 32. 22 | 41.5 | 41.7 |
| Apr. 30 | 1700 | 40°39.41 | 67°41.6' | | 30 | 31 | | 39.6 | 39.6 |
| Apr. 30 | 1800 | 40°39.41 | 67° 29' | | 32 | 33 | 32.20 | 41.0 | 41.2 |
| Apr. 30 | 1900 | 40°39.41 | 67°13.4' | | 33 | 35 | | 40.1 | 40.1 |
| Apr. 30 | 2000 | 40°40.51 | 67°01.7' | | 35 | 37 | 32.88 | 45.9 | 45.9 |
| Apr. 30 | 2100 | 40°41.8' | 66°49.31 | | 37 | 39 | | 46.3 | 46.4 |
| Apr. 30 | 2200 | 40° 471 | 66°40.8' | | 38 | 41 | 32.74 | 45.3 | 45.3 |
| Apr. 30 | 2300 | 40°45.4' | 66° 351 | | 40 | 43 | | 45.0 | 46.2 |
| Apr. 30 | 2400 | 41°04.1' | 66°31.2' | | 42 | 45 | 32.64 | 43.9 | 44.2 |
| May 1 | 0100 | 41°08.3¹ | 66°29.21 | | 43 | 46 | 32, 31 | 40.2 | 40.7 |
| May 1 | 0200 | 41° 15' 41°19.2' | 66° 26' 66°24.1' | | 44 45 | 47 48 | 32.31 | 40.8 38.6 | 39.3 |
| May 1 May 1 | 0400 | 41 19.2 | 66°20.2' | | 46 | 50 | 31.82 | 37.8 | 37.9 |
| May 1 | 0500 | 41°35.8' | 66° 16' | | 48 | 51 | 31.02 | 38.8 | 39.4 |
| May 1 | 0600 | 41°45.21 | 66°11.1' | | 49 | 53 | 32, 07 | 39.3 | 39.5 |
| May 1 | 0700 | 41°55.51 | 66°06.21 | | 50 | 55 | | 40.2 | 40.5 |
| May 1 | 0820 | 42°05.71 | 66°00.31 | 12 | 53 | 57 | 32,63 | 42.1 | 41.8 |
| May 1 | 0900 | 42°11.4' | 65°53.81 | | 54 | 59 | | 38.2 | 38.5 |
| May 1 | 1000 | 42° 20' | 65° 45† | | 56 | 61 | 31.53 | 39.6 | 39.4 |
| May 1 | 1115 | 42°30.41 | 65° 351 | | 59 | 63 | | 39.6 | 38.0 |
| May 1 | 1215 | 42°39.5' | 65° 30' | | 60 | 65 | 31.28 | 39.9 | 39.3 |
| May 1 | 1300 | 42°47.81 | 65°27.2' | | 62 | 67 | 01 01 | 40.2 | 39.2 |
| May 1 | 1400 | 42°54.5' | 65°22.21 | | 63 | 68 70 | 31.21 | 40.0 | 38.8 |
| May 1 | 1500 | 42° 57' 42° 58' | 65°23.6' 65° 41' | | 64 | 72 | 31.18 | 39.8 | 38.9 |
| May 1 May 1 | 1600 | 42°58.21 | 65°57.8' | | 69 | 74 | 31.10 | 39.0 | 38.1 |
| May 1 | 1800 | 42°48.81 | 65°53.2' | | 70 | 76 | 31.46 | 40.3 | 39.2 |
| May 1 | 1900 | 42° 41' | 65°48.21 | | 71 | 77 | | 39.8 | 38.5 |
| May 1 | 2000 | 42° 321 | 65° 43' | | 73 | 79 | 31.45 | 39.7 | 39.2 |
| May 1 | 2100 | 42°22.3' | 65°35.81 | | 75 | 82 | | 38.6 | 38.0 |
| May 1 | 2200 | 42°14' | 65° 331 | | 77 | 84 | 31.43 | 37.4 | 37.5 |
| May 1 | 2300 | 42° 071 | 65° 451 | | 79 | 86 | | 38.8 | 38.3 |
| May 1 | 2400 | 42° 001 | 65°57' | | 81 | 88 | 32. 19 | 41.8 | 41.7 |
| | 1 | | | 1 | 1 | | , | • | |

Table 4. --Date, time, and position for temperature and salinity records in relation to 1-meter tows and Hardy Plankton Recorder gauze sections Albatross III cruise no. 60, April 19 to May 2, 1955--Continued

| | | | | | 0.0 | 10 | Surf | ace | 10- meter |
|-------|------|---------------------|-----------------------|----------------|-----------------------------|------------------------------|---------------|-----------------------|-----------------------|
| Date | Time | Lat- itude N. | Longi - tude W. | l-meter tow | Surface gauze section | 10-meter gauze section | Salin- ity | Tem- pera- ture | tem- pera- ture |
| | | | | | | | % | °F. | °F. |
| | | 11050 01 | 000 071 | | 0.0 | 0.0 | } | | |
| May 2 | 0100 | 41°52.3' | 66° 07' | | 83 | 90 | 20 70 | 42.3 | 40.3 |
| May 2 | 0200 | 41°46.3¹ | 66°17.4' | | 84 | 92 | 32.79 | 42.8 | 42.5 |
| May 2 | 0300 | 41°36.8¹ | 66°27.7' | | 85 | 93 | 00 50 | 42.1 | 44.2 |
| May 2 | 0400 | 41° 28' | 66° 391 | | 87 | 96 | 32.58 | 44.8 | |
| May 2 | 0500 | 41°20.4' | 66° 491 | 13 | 89 loading 5 | 98 | | 43.7 | 43.2 |
| May 2 | 0720 | 41°18.31 | 67°02.4' | | 1 | | 32,65 | 42.6 | 41.3 |
| May 2 | 0810 | 41° 14' | 67°11.6' | | 2 | | | 42.8 | 42.1 |
| May 2 | 0900 | 41°09.5' | 67°20.3' | | 4 | | 32.53 | 43.3 | 43.2 |
| May 2 | 1000 | 41° 03' | 67° 30' | | 6 | | | 43.6 | 42.8 |
| May 2 | 1110 | 40°55.61 | 67° 43' | | 8 | | 32, 29 | 43.8 | 43.0 |
| May 2 | 1210 | 40° 481 | 67°55.4' | | 9 | | | 43.4 | 42.8 |
| May 2 | 1300 | 40°43.3' | 68°04.21 | | 11 | | 32, 25 | 43.9 | 43.5 |
| May 2 | 1400 | 40°36.7' | 68°11.4' | 14 | 12 | | | 42.6 | 42,2 |
| May 2 | 1500 | 40°34.7' | 67°59.81 | 2. | 14 | | 31.80 | 41.5 | 40.8 |
| May 2 | 1600 | 40°32.81 | 67°47.41 | | 15 | ~ - | | 41.1 | 40.0 |
| May 2 | 1700 | 40°30.7' | 67° 351 | | 16 | | 31.82 | 42.0 | 41.2 |
| May 2 | 1800 | 40°32.7' | 67°29.5' | | 17 | | | 46.5 | 45.8 |
| May 2 | 1900 | 40°32.5' | 67° 45' | | 21 | | 31.97 | 41.9 | 41.6 |
| May 2 | 2005 | 40° 32' | 68°01.61 | | 24 | | | 42.0 | 41.3 |
| May 2 | 2120 | 40°30.7' | 68°10.7' | | 25 | | 32.03 | 41.1 | 40.9 |
| May 2 | 2200 | 40°29.8' | 68° 19' | | 26 | | | 40.9 | 40.7 |
| May 2 | 2300 | 40°28.2' | 68° 321 | | 27 | | 31.93 | 43.1 | 42.7 |
| May 2 | 2400 | 40° 271 | 68°45.81 | | 29 | | | 43.3 | 43.3 |
| May 3 | 0100 | 40°25.31 | 69°01.21 | | 31 | | 32.20 | 42.3 | 42.3 |
| May 3 | 0200 | 40° 261 | 69° 15' | | 33 | | | 43.8 | 43.7 |
| May 3 | 0300 | 40°29.41 | 69°29.31 | | 35 | | | 44.4 | 43.6 |
| May 3 | 0400 | 40°30.61 | 69°42.81 | | 37 | | 32.39 | 44.1 | 43.9 |
| May 3 | 0500 | 40°33.71 | 69° 55' | | 38 | | | 43.8 | 43.7 |
| May 3 | 0600 | 40°38.51 | 70°07.71 | | 40 | • | 32.40 | 44.4 | 43.0 |
| May 3 | 0700 | 40°48.51 | 70° 201 | | 43 | | | 44.3 | 43.9 |
| May 3 | 0805 | 40° 571 | 70° 31' | | 44 | | 32.66 | 45.6 | 43.5 |
| May 3 | 0900 | 41°03.41 | 70° 40' | | 46 | | | 46.7 | 43.4 |
| May 3 | 1000 | 41°10.4' | 70°48.81 | 15 | 47 | | 32,22 | 48.4 | 44.0 |

Table 5.--Date, time, and position for temperature and salinity records in relation to 1-meter tows and Hardy Plankton Recorder gauze sections *Albatross III* cruise no. 61, May 16-28, 1955

| | 1 | | 1 | | T | | 1 | | _ |
|------------------|--------------|----------------------|---------------------|---------|-----------|-----------|--------|-------|--------------|
| | | | | | | | Sur | face | 10- |
| | | Lat- | Longi- | l-meter | Surface | 10-meter | | | meter |
| Date | Time | itude | tude | tow | gauze | gauze | Salin- | Tem- | tem- |
| | | N. | W. | | section | section | ity | pera- | pera- |
| | | | | | | | | ture | ture |
| | | | | | | | | | |
| | | | | | loading 1 | loading 1 | % | °F. | °F. |
| May 16 | 1115 | 40°17.3' | 71° 00' | | 1 | 1 | 32.33 | 49.7 | 49.5 |
| May 16 | 1200 | 41°10.9 | 70°54.8' | | 2 | 2 | | 49.0 | 47.9 |
| May 16 | 1300 | 41°02.6' | 70°47.81 | | 3 | 4 | 32.42 | 49.5 | 49.0 |
| May 16 | 1400 | 40°53.61 | 70°41.21 | | 5 | 6 | | 49.1 | 48.5 |
| May 16 | 1500 | 40°43.7' | 70°33.71 | | 6 | 9 | 32.66 | 49.3 | 48.3 |
| May 16 | 1600 | 40°35.3' | 70°26.31 | | 8 | 11 | | 47.9 | 47.3 |
| May 16 | 1700 | 40°26.8' | 70°19.2' | | 10 | 13 | 32.34 | 47.4 | 46.4 |
| May 16 | 1800 | 40°18.9' | 70°13.6' | | 11 | 15 | 20 14 | 48.2 | 48.0 |
| May 16 | 1900 | 40°09.51 | 70°06.31 | | 12 | 17 19 | 32.14 | 48.8 | 48.8 |
| May 16 | 2000 | 40° 00' 40°00.2' | 70° 00' 69°45.7' | | 16 | 22 | 32.07 | 48.3 | 47.9 |
| May 16 | 2100 | 40°00.21 | 69°31.8' | | 17 | 24 | 32.01 | 48.8 | 48.7 |
| May 16 May 16 | 2300 | 40° 001 | 69°16.7' | | 19 | 26 | 32.20 | 47.4 | 47.4 |
| May 16 | 2400 | 40° 00' | 69°18.8' | | 19 | 26 | 52.20 | 46.8 | 46.7 |
| May 17 | 0200 | 39°59.31 | 68°51.2' | 1 | 31 | 41 | 31.54 | 47.7 | 47.7 |
| May 17 | 0300 | 39° 591 | 68° 37' | | 33 | 44 | | 50.3 | 50.3 |
| May 17 | 0400 | 39° 59¹ | 68°23.3' | | 35 | 45 | 32, 92 | 50.1 | 50.1 |
| May 17 | 0500 | 39° 591 | 68° 10' | | 37 | 47 | | 50.0 | 49.6 |
| May 17 | 0600 | 40°00.41 | 67°58.11 | | 38 | 49 | 32.92 | 50.1 | 50.0 |
| May 17 | 0800 | 40°18.91 | 67°47.3' | | 42 | 53 | 33.13 | 50.3 | 50.3 |
| May 17 | 0900 | 40°27.61 | 67°41.3' | | 44 | 55 | | 48.1 | 50.5 |
| May 17 | 1000 | 40°36.81 | 67°36.41 | | 45 | 56 | 32.51 | 45.5 | 45.4 |
| May 17 | 1100 | 40°45.81 | 67°31.8' | | 47 | 58 | | 45.5 | 45.5 |
| May 17 | 1200 | 40°54.6' | 67°27.8' | | 48 | 60 | 32.64 | 45.7 | 45.7 |
| May 17 | 1300 | 41°03.8' | 67°23.4' | | 49 | 62 | 00 50 | 44.2 | 44.3 |
| May 17 | 1400 | 41°13.3¹ | 67°17.4' | | 50 | | 32.79 | 44.8 | 44.9 |
| May 17 | 1500 | 41°23.3' | 67°13.8' | | | | 32.84 | 45.2 | 45.1 45.2 |
| May 17 | 1600 1700 | 41°33.3' 41°43.8' | 67°10.2' | | | 1 | 34.04 | 44.6 | 44.7 |
| May 17 | 1700 | 41 43.0 | 01 03.0 | | loading 2 | loading 2 | | 11.0 | 11.1 |
| May 17 | 1800 | 41°53.3' | 66°58.81 | 2 | 1 | 1 | 32.95 | 44.3 | 44.3 |
| May 17 | 2000 | 42°05.7' | 66°52.8' | | 3 | 3 | | 44.0 | 44.1 |
| May 17 | 2105 | 42°16.8' | 66°45.5' | | 5 | 5 | 32.44 | 45.5 | 45.3 |
| May 17 | 2200 | 42°24,31 | 66°38.7' | | 6 | 7 | | 45.0 | 44.9 |
| May 17 | 2300 | 42°30.81 | 66°30' | | 8 | 8 | 31.51 | 42.1 | 41.3 |
| May 18 | 0010 | 42°39.5' | 66°19.9' | | 10 | 10 | | 42.8 | 42.0 |
| May 18 | 0200 | 42°57.6' | 66°10.6' | | 13 | 14 | 31.30 | 39.6 | 39.4 |
| May 18 | 0300 | 43°07.8' | | | 15 | 16 | | 40.8 | 40.8 |
| May 18 | 0400 | 43°14.8' | 66° 091 | | 17 | 18 | 31.32 | 40.5 | 40.7 |
| May 18 | 0500 | 43°14.8' | | | 19 | 20 | | 40.5 | 40.5 |
| May 18 | 0600 | 43°14.6' | | | 21 | 22 | 31.56 | 41.2 | 40.7 |
| May 18 | 07 05 | 42° 161 | 66° 55¹ | | 23 25 | 24 26 | 32.34 | 44.3 | 43.0 |
| May 18 | 0800 | 43° 18' 43°19.5' | 67°08.91 | | 26 | 28 | 32.34 | 44.8 | 44.6 |
| May 18 | 0905 1000 | 43°26.1' | | | 28 | 30 | 32, 32 | 45.3 | 45.2 |
| May 18 May 18 | 1100 | 43°31.5' | | | 30 | 32 | | 44.7 | 44.4 |
| May 18 | 1200 | 43°37.2' | | 3 | 33 | 35 | 31.59 | 44.2 | 43.9 |
| May 18 | 1400 | 43°45.3' | | | 35 | 37 | | 42.9 | 42.4 |
| May 18 | 1500 | 43°52.41 | | | 37 | 39 | 31.67 | 42.5 | 42.0 |
| May 18 | 1600 | 43° 57' | 66°34.81 | | 39 | 41 | | 42.0 | 41.7 |
| V | | 1 | 1 | 1 | | | 1 | | |

Table 5. --Date, time, and position for temperature and salinity records in relation to 1-meter tows and Hardy Plankton Recorder gauze sections Albatross III cruise no. 61, May 16-28, 1955--Continued

| | | | | | , | | | | |
|------------------|--------------|----------------------|----------------------|---------|-----------|-----------|--------|--------------|-------|
| | | | | | | | Surf | ace | 10- |
| | | Lat- | Longi- | 1-meter | Surface | 10-meter | | | meter |
| Date | Time | itude | tude | tow | gauze | gauze | Salin- | Tem- | tem- |
| | | N. | W. | tow | section | section | ity | pera- | pera- |
| | | | | | | | 109 | ture | ture |
| | - | | | | | | 0/00 | °F. | °F. |
| May 18 | 1700 | 44°03.61 | 66°47.7' | | 41 | 43 | 31.67 | 42.1 | 41.9 |
| May 18 | 1800 | 44° 091 | 67°00.31 | | 43 | 44 | | 42.2 | 42.0 |
| May 18 | 1900 | 44°14.8' | 67°13.4' | | 44 | 47 | 31.35 | 42.3 | 42.0 |
| May 18 | 2000 | 44°18.5' | 67°25.9' | | 46 | 49 | 01 40 | 41.8 | 41.3 |
| May 18 | 2100 2200 | 44° 201 44° 20.71 | 67° 20' 67°08.3' | | 47 49 | 51 52 | 31.46 | 41.5 | 41.2 |
| May 18 May 18 | 2400 | 44°24.2' | 66°41.2' | | 52 | 56 | 31.07 | 41.6 | 41.3 |
| May 19 | 0100 | 44°23.8' | 66°30.6¹ | | 54 | 57 | | 42.0 | 41.8 |
| May 19 | 0200 | 44°17.7' | | | 55 | 59 | 30.91 | 42.3 | 41.9 |
| May 19 | 0300 | 44°10.8' | 66°48.2' | | 57 | 61 | | 42.2 | 41.4 |
| May 19 | 0400 | 44° 041 | 66°57.31 | | 59 | 62 | 31.76 | 43.6 | 43.1 |
| May 19 | 0500 | 43°57.3' | 67°05.71 | | 60 | 64 | | 43.2 | 43.0 |
| May 19 | 0600 | 43°50.81 | 67°13.81 | 4 | 62 | 65 | 32.26 | 44.4 | 44.4 |
| May 19 | 0755 | 43°46.81 | 67° 021 | | 64 | 69 | | 41.2 | 41.2 |
| May 19 | 0900 | 43°44.51 | | | 66 | 71 | 31.47 | 41.9 | 41.8 |
| May 19 | 1000 | 43° 40' | 66°35.31 | | 68 | 73 | | 41.4 | 41.5 |
| May 19 | 1100 | 43°32.41 | 66° 22' | | 70 | 75 | 31.73 | 41.1 | 40.9 |
| May 19 | 1155 | 43° 291 | 66° 13' | | 72 | 77 | 01 00 | 40.9 | 40.9 |
| May 19 | 1300 | 43°28.51 | 66°25.2' | | 74 | 79 | 31.66 | 42.4 | 42.3 |
| May 19 | 1400 | 43°27.8¹ | 66°37.81 | | 76 77 | 80 82 | 31.70 | 41.0 43.4 | 41.1 |
| May 19 May 19 | 1500 1600 | 43° 28' | 67°02.21 | | 79 | 84 | 31.70 | 45.6 | 45.6 |
| May 19 | 1700 | 43°29.21 | 67°14.4' | | 81 | 85 | 32, 39 | 45.8 | 45.8 |
| May 15 | 1100 | 70 20.2 | 01 14.4 | | loading 3 | loading 3 | 32, 33 | 10.0 | 10.0 |
| May 19 | 1800 | 43°29.61 | 67°28.61 | 5 | 1 | 1 | | 45, 2 | 44.8 |
| May 19 | 2005 | 43°30.41 | 67°43.5' | | 3 | 3 | 32.31 | 45.8 | 45.6 |
| May 19 | 2200 | 43°30.51 | 68°11.9¹ | | 6 | 6 | 32.30 | 45.8 | 45.7 |
| May 19 | 2300 | 43°30.61 | 68°26.8' | | 8 | 7 | | 43.6 | 43.7 |
| May 20 | 0005 | 43°30.7' | 68°42.1' | | 10 | 10 | 31.84 | 44.1 | 43.6 |
| May 20 | 0105 | 43° 31' | 68°56.2' | | 11 | 12 | | 44.4 | 44.4 |
| May 20 | 0200 | 43°31.1' | 69°09.1' | | 13 | 14 | 32.00 | 45.5 | 45.5 |
| May 20 | 0300 | 43°30.8¹ | 69°22.3' | | 14 | 16 | | 46.3 | 45.5 |
| May 20 | 0405 | 43°30.91 | 68°37.2' 68° 51' | | 16 | 18 | 30, 20 | 47.8 | 47.4 |
| May 20 | 0500 | 43° 31' 43°29.3' | 70°04.2' | | 18 20 | 19 22 | | 47.5 47.9 | 45.4 |
| May 20 May 20 | 0600 | 43°19.1' | 70°04.2' | | 20 | 24 | 30.33 | 47.7 | 46.8 |
| May 20 | 0755 | 43°11.6' | 70°15.5' | | 23 | 25 | 30.98 | 47.7 | 46.8 |
| May 20 | 0900 | 43° 00' | 70°21.6' | | 25 | 28 | | 48.2 | 46.8 |
| May 20 | 1000 | 42°56.81 | 70°11.1' | | 27 | 30 | 31.44 | 48.5 | 47.5 |
| May 20 | 1100 | 42°55.61 | 69° 571 | | 29 | 31 | | 47.7 | 47.3 |
| May 20 | 1200 | 42°54.41 | 69°44.81 | 6 | 30 | 33 | 32.37 | 48.3 | 47.3 |
| May 20 | 1400 | 42° 51' | 69°16.8' | | 36 | 40 | | 49.4 | 47.8 |
| May 20 | 1500 | 42°48.31 | 69°00.2' | | 38 | 42 | 32. 33 | 48.7 | 47.7 |
| May 20 | 1600 | 42°47.81 | 68°47.3' | | 40 | 44 | | 47.8 | 45.6 |
| May 20 | 1700 | 42°46.8' | 68°31.8' | | 42 | 46 | 31.99 | 47.3 | 45.3 |
| May 20 | 1800 | 42°47.5¹ | 68°18.6' | | 44 | 48 | 00 07 | 47.5 | 46.5 |
| May 20 | 1900 | 42°48.2¹ | 68°05.2' | | 45 | 49 | 32.37 | 46.8 | 45.8 |
| May 20 | 2000 | 42°48.8¹ 42°48.4¹ | 67°51.5' 67°37.9' | | 47 | 51 | 22 15 | 46.3 | 45.6 |
| May 20 May 20 | 2100 | 42°48.4° | | | 49 51 | 53 55 | 32.15 | 45.6 | 43.2 |
| 1.149 20 | 3200 | 12 11.0 | 01 24.2 | 1 | 21 | 33 | | 46.1 | 44.5 |

Table 5. --Date, time, and position for temperature and salinity records in relation to 1-meter tows and Hardy Plankton Recorder gauze sections Albatross III cruise no. 61, May 16-28, 1955--Continued

| | | Y - A | T | | 6 6 | 10 | Sur | face | 10- |
|------------------|--------------|----------------------|----------------------|----------------|-----------------------------|------------------------------|---------------|-----------------------|--------------------------------|
| Date | Time | Lat- itude N. | Longi- tude W. | l-meter tow | Surface gauze section | 10-meter gauze section | Salin- ity | Tem- pera- ture | meter tem- pera- ture |
| | | | | | | | %。 | \circ_F . | °F. |
| May 20 | 2300 | 42°47.71 | 67°10.51 | | 52 | 57 | 32.32 | 46.4 | 46.1 |
| May 20 | 2400 | 42°47.11 | 66°55.21 | | 55 | 59 | | 46.8 | 46.2 |
| May 21 | 0100 | 42°46.31 | 66°39.51 | | 57 | 61 | 32.37 | 45.8 | 46.2 |
| May 21 | 0200 | 42°45.3¹ 42°44.7¹ | 66°23.9' 66°08.1' | | 59 61 | 63 65 | 31.50 | 42.8 | 42.0 |
| May 21 May 21 | 0400 | 42°43.81 | 65°55.21 | | 63 | 67 | | 42.2 | 41.4 |
| May 21 | 0500 | 42° 431 | 65°42.4' | | 64 | 69 | 31.20 | 43.0 | 42.0 |
| May 21 | 0600 | 42°42.21 | 65°27.51 | 7 | 66 | 72 | | 42.2 | 41.8 |
| May 21 | 0800 | 42°39.41 | 65° 081 | | 71 | 74 | 31.27 | 42.3 | 41.6 |
| May 21 | 0900 | 42°36.41 | 64°51.4' | | 73 | 77 | 21 74 | 43.2 | 42.2 |
| May 21 | 1000 | 42°30.7' 42°21.8' | 64°38.9' 64°40.2' | | 75 77 | 79 81 | 31.74 | 43.1 | 42.8 |
| May 21 May 21 | 1200 | 42°11.2' | 64°40.51 | | 79 | 83 | 32,69 | 47.5 | 46.3 |
| May 21 | 1300 | 42° 021 | 64°41.8' | | 80 | 84 | | 48.8 | 48.0 |
| May 21 | 1400 | 41°59.71 | 64°52.5 | | 83 | 86 | 32.51 | 49.2 | 48.8 |
| May 21 | 1500 | 41°59.8' | 65°05.91 | | 84 | 88 | | 47.2 | 45.6 |
| May 21 | 1600 | 41°59.91 | 65°19.81 | ~ ~ | 86 | 90 | 31.77 | 44.3 | 41.8 |
| May 21 | 1700 | 41°59.1' | 65°32.81 | | 88 loading 4 | 92 loading 4 | | 47.7 | 47.6 |
| May 21 | 1805 | 41°58.41 | 65°45,61 | 8 | 1 | 1 | 32.15 | 48.4 | 48.7 |
| May 21 | 2000 | 41°58.31 | 66°02.51 | | 3 | 3 | 32.51 | 45.0 | 44.2 |
| May 21 | 2100 | 41°59.21 | 66° 181 | ~ ~ | 4 | 5 | | 44.0 | 43.1 |
| May 21 | 2200 | 42°01.1 | 66° 31' | | 6 | 6 | 32.84 | 44.6 | 44.4 |
| May 21 | 2300 | 42°03.6¹ | 66°46.21 | | 8 | 9 | 22 01 | 44.8 | 44.7 |
| May 21 | 2400 0100 | 42° 041 42° 02,81 | 67°00.2' 67°13.2' | | 9 | 11 12 | 32.91 | 45.1 46.1 | 45.1 |
| May 22 May 22 | 0200 | 42°01.6' | 67° 26' | | 12 | 14 | 32.93 | 46.3 | 46.3 |
| May 22 | 0310 | 41°57.8' | 67° 42' | | 14 | 16 | | 46.1 | 46.0 |
| May 22 | 0400 | 41°59.7' | 67°52.51 | | 16 | 18 | 32.54 | 48.7 | 45.4 |
| May 22 | 0500 | 42°02.31 | 68°03.61 | | 17 | 19 | | 49.2 | 47.6 |
| May 22 | 0600 | 42°04.8¹ | 68°14.6¹ | | 18 | 21 | 32.48 | 47.9 | 46.9 |
| May 22 May 22 | 0700 | 42° 09' 42°12.4' | 68°28.3' 68°42.6' | | 20 21 | 23 | 32.58 | 48.5 | 47.3 |
| May 22 | 0900 | 42°15.7' | 68°56.9' | | 23 | 27 | 32.00 | 48.5 | 47.3 |
| May 22 | 1000 | 42°19.1' | 69° 10¹ | | 25 | 29 | 32.47 | 48.7 | 47.9 |
| May 22 | 1100 | 42°22.91 | 69°25.21 | | 26 | 31 | | 49.2 | 48.6 |
| May 22 | 1200 | 42°24.7' | 69° 37' | 9 | 29 | 32 | 32.14 | 46.5 | 45.6 |
| May 22 | 1400 | 42° 281 | 69° 59' 70°12.4' | | 31 | 43 45 | 30.89 | 49.9 | 48.1 |
| May 22 May 22 | 1500 | 42°30.2' 42°32.3' | 70°12.4° | | 35 | 47 | 30.03 | 52.7 | 51.5 |
| May 22 | 1700 | 42°28.81 | 70°25.6' | | 37 | 49 | 28.30 | 52.8 | 50.7 |
| May 22 | 1800 | 42° 22¹ | 70°16.5' | | 39 | 51 | | 51.9 | 48.2 |
| May 22 | 1900 | 42°14.51 | 70°06.71 | | 40 | 53 | 30.94 | 50.5 | 48.8 |
| May 22 | 2000 | 42°05.81 | 69°56.5' | | 42 | 55 | 21 10 | 51.6 | 47.8 |
| May 22 | 2100 | 41°58.1' | 69°46.21 | | 44 | 57 59 | 31.16 | 49.7 | 48.2 |
| May 22 May 22 | 2200 | 41°51.6° 41°50.3° | 69°34.8' 69°21.2' | | 46 | 61 | 32.00 | 50.1 | 48.7 |
| May 22 | 2400 | 41 49.2 | | 10 | 49 | 66 | 52.00 | 50.1 | 48.0 |
| | 1 200 | 1 -2 -0.0 | | 1 | | 1 | | | 1 |

Table 5. -- Date, time, and position for temperature and salinity records in relation to 1-meter tows and Hardy Plankton Recorder gauze section Albatross III cruise no. 61, May 16-28, 1955-- Continued

| | | Lat- | Longi | | Conform | 10 | Surf | ace | 10- |
|------------------|--------------|----------------------|--------------------|---------|------------------|-------------------|--------|--------------|---------------|
| Date | Time | itude | Longi- tude | l-meter | Surface gauze | 10-meter gauze | | Tem- | meter tem- |
| | | N. | W. | tow | section | section | Salin- | pera- | pera- |
| | | | | | | | ity | ture | ture |
| | | | | | | | 0, | °F. | |
| May 23 | 0200 | 41°48.3' | 68°48.1' | | 59 | 68 | 32.38 | 49.4 | °F. 46.1 |
| May 23 | 0300 | 41°47.7' | 68°32.51 | | 61 | 70 | | 48.1 | 47.5 |
| May 23 | 0400 | 41°46.81 | 68° 171 | | 63 | 72 | 32.76 | 47.5 | 45.7 |
| May 23 | 0500 | 41°45.6' | 68°04.4 | | 65 | 75 | | 46.8 | 46.7 |
| May 23 | 0600 | 41*40.81 | 68°17.3 | | 67 | 77 | 32.72 | 47.3 | 46.8 |
| May 23 | 0700 | 41°38.8' | 68°29.81 | | 69 | 78 | | 49.0 | 44.3 |
| May 23 | 0800 | 41°37.3' | 68°41.8' | | 70 | 80 | 32.32 | 48.8 | 48.1 |
| May 23 | 0900 | 41°36.7' | 68°55.1' | | 72 | 82 | | 47.7 | 47.1 |
| May 23 | 1000 | 41°36.1¹ | 69°09.21 | | 74 | 84 | 32.09 | 48.3 | 47.2 |
| May 23 | 1100 | 41°34.8' 41°30.8' | 69°21.8' | | 7 6 77 | 86 | 01 00 | 49.8 | 48.9 |
| May 23 | 1200 1400 | 41°20.8' | 69°30.71 | | 79 | 87 | 31.88 | 44.7 | 44.4 |
| May 23 May 23 | 1500 | 41°17.9' | 69°11.8' | | 81 | 89 92 | | 44.0 | 43.4 |
| May 23 | 1600 | 41°18.4' | 68°56.41 | | 83 | 94 | | 50.0 | 49.5 |
| May 23 | 1700 | 41°20.2' | 68°42.11 | | 84 | 96 | 32, 38 | 49.3 | 48.9 |
| May 23 | 1800 | 41 22.7 | 68°28.4' | 11 | 86 | 97 | | 45.7 | 44.9 |
| | 1000 | | 00 20.1 | 1 | loading 5 | loading 5 | | 10.1 | 1 |
| May 23 | 2000 | 41°24.5' | 68*14.41 | | 2 | 2 | 32.84 | 47.3 | 47.2 |
| May 23 | 2100 | 41° 27' | 68° 021 | | 4 | 4 | | 48.3 | 48.3 |
| May 23 | 2200 | 41°301 | 67° 491 | | 6 | 6 | 32.94 | 47.9 | 47.7 |
| May 23 | 2300 | 41°32.4¹ | 67° 341 | | 8 | 8 | | 47.6 | 47.5 |
| May 23 | 2400 | 41°33.4' | 67°20.7' | | 9 | 10 | 32.92 | 47.2 | 47.1 |
| May 24 | 0100 | 41°33.1' | 67°04.21 | | 12 | 12 | | 46.8 | 46.8 |
| May 24 | 0200 | 41°32.8' | 66°48.1' | | 14 | 15 | 32.80 | 45.3 | 45.3 |
| May 24 | 0300 | 41°32.1' | 66°34.8¹ | | 15 | 16 | | 45.2 | 45.0 |
| May 24 | 0500 | 41°30.3' | 66°18.3' | | 18 | 19 | 32.80 | 44.7 | 44.2 |
| May 24 | 0600 | 41°27.4' | 66°03.2' | | 20 | 21 | | 44.6 | 44.5 |
| May 24 | 0700 | 41°22.8' 41° 15' | 65°53.71 | | 22 | 23 | 31.93 | 44.5 | 44.4 |
| May 24 May 24 | 0900 | 41°07.3¹ | 66°07.1' | | 24 25 | 25 26 | 35.44 | 46.5 66.9 | 46.2 |
| May 24 | 1000 | 41°01.5' | 66°14.7' | | 27 | 28 | 00.44 | 64.8 | 64.9 |
| May 24 | 1100 | 41°01.2 | 66°25.51 | | 28 | 30 | 33.05 | 53.8 | 59.4 |
| May 24 | 1200 | 41°02.2' | 66°38.51 | 12 | 31 | 31 | | 48.2 | 47.4 |
| May 24 | 1400 | 41°03.7' | 66°57.81 | 1 11 | 33 | 37 | 32.64 | 47.9 | 47.9 |
| May 24 | 1500 | 41°02.81 | 67° 10' | | 35 | 39 | | 48.1 | 47.7 |
| May 24 | 1605 | 41°01.2' | 67°22.81 | | 37 | 41 | 32.69 | 46.5 | 46.4 |
| May 24 | 1700 | 40°59.71 | 67°33.41 | | 38 | 42 | | 45.4 | 45.0 |
| May 24 | 1800 | 40° 581 | 67°47.21 | | 40 | 44 | 32.66 | 46.6 | 46.4 |
| May 24 | 1900 | 40°56.8' | 67°59.8' | | 42 | 46 | | 46.7 | 46.7 |
| May 24 | 2000 | 40°57.6' | 68°14.8' | | 44 | 48 | 32.56 | 46.1 | 45.9 |
| May 24 | 2100 | 40°58.9' | 68°39.5¹ | | 48 | 51 | | 46.6 | 46.6 |
| May 24 | 2300 | 40°59.8¹ | 68°56.21 | | 50 | 53 | 32.67 | 45.5 | 45.4 |
| May 25 | 0005 | 41°01.3¹ | 69°09.31 | | 52 | 56 | 20 00 | 44.8 | 44.9 |
| May 25 | 0105 | 40°52.9' 40°45.2' | 69°07¹ 69°05.2¹ | | 54 | 57 59 | 32.23 | 45.2 | 44.9 |
| May 25 May 25 | 0300 | 40°45.2° | 69°04.21 | | 55 57 | 60 | 32.15 | 44.8 | 44.8 |
| May 25 | 0400 | 40°29.21 | 68° 581 | | 58 | 62 | 32.13 | 49.3 | 48.8 |
| May 25 | 0505 | 40°27.51 | 68°43.61 | | 60 | 64 | 32, 39 | 48.8 | 46.3 |
| May 25 | 0605 | 40°27.71 | | 13 | 62 | 67 | | 48.6 | 48.5 |
| , 5 | , | | 1 - 5 - 5 . 0 | | | , | | 20.0 | 10.0 |

Table 5. --Date, time, and position for temperature and salinity records in relation to 1-meter tows and Hardy Plankton Recorder gauze section Albatross III cruise no. 61, May 16-28, 1955--Continued

| | | | | | | | Surfa | ce | 10- |
|------------------|--------------|----------------------|----------|---------|-----------|----------|--------|--------------|--------------|
| | | Lati- | Longi- | | Surface | 10-meter | | 1 | meter |
| Date | Time | tude | tude | l-meter | gauze | gauze | Salin- | Tem- | tem- |
| | | N. | W. | tow | section | section | ity | pera- | pera- |
| | | | | | | | 1 Ly | ture | ture |
| | | | | | | | 0, | 0.55 | 0= |
| May 25 | 0800 | 40°27.51 | 68°10.8 | ~- | 67 | 60 | · /o | °F. | °F. |
| May 25 | 0900 | 40°28.41 | 67°58.1 | | 69 | 69 71 | 32.53 | 48.3 | 48.3 |
| May 25 | 1000 | 40°29.8' | 67°44.2 | | 71 | 73 | 32.70 | 48.9 | 46.3 |
| May 25 | 1100 | 40°30.51 | 67°30.8' | | 72 | 75 | 52.10 | 55.3 | 56.6 |
| May 25 | 1200 | 40°31.31 | 67°17.7 | | 75 | 77 | 33.99 | 56.4 | 55.9 |
| May 25 | 1300 | 40°31.3' | 67°02.6 | | 77 | 79 | | 57.5 | 63.5 |
| May 25 | 1400 | 40° 31' | 66°48.61 | | 79 | 81 | 35.47 | 64.7 | 64.5 |
| May 25 | 1500 | 40°31.2' | 66° 351 | | 80 | 83 | | 59.7 | 60.2 |
| May 25 | 1605 | 40°26.4' | 66°36.2 | | 82 | 85 | 34.23 | 59.1 | 58.0 |
| May 25 | 1700 | 40°19.8' | 66°43.4 | | 84 | 87 | | 64.7 | 64.6 |
| May 25 | 1800 | 40°11.9' | 66°51.9 | | 85 | 89 | 35.43 | 65.3 | 65.2 |
| May 25 | 1900 | 40°04.31 | 66°58.8 | | 87 | 90 | | 64.9 | 64.6 |
| May 25 | 2000 | 39° 571 | 67°07.31 | | 89 | 92 | 35.35 | 64.9 | 64.5 |
| May 25 | 2100 | 39°50.4¹ | 67° 15' | | 91 | 94 | 35.55 | 65.8 | 65.4 |
| May 25 | 2200 | 39°58.71 | 67° 22¹ | | 93 | 96 | | 57.4 | 63.7 |
| May 25 | 2300 | 40°08.31 | 67°28.91 | | 95 | 98 | 33. 12 | 54.5 | 54.1 |
| May 26 | 0010 | 40°17.9' | 67°35.8' | 14 | loading 6 | | | E 2 2 | 50.4 |
| May 26 | 0200 | 40°30.51 | 67°41.1 | | 1 3 | | | 52.2 53.0 | 52.4 52.0 |
| May 26 | 0310 | 40°40.31 | 67° 47' | | 5 | | 33.11 | 48.9 | 48.5 |
| May 26 | 0400 | 40°48.81 | 67°51.5 | | 7 | | 32,69 | 46.9 | 46.0 |
| May 26 | 0500 | 40°56.71 | 67° 561 | | 8 | | 52.05 | 45.9 | 45.8 |
| May 26 | 0600 | 40°50.61 | 68°01.71 | | 10 | | 32,67 | 44.4 | 44.3 |
| May 26 | 07 05 | 40° 391 | 68°05.11 | | 12 | | | 49.3 | 49.1 |
| May 26 | 0800 | 40°27.71 | 68°08,41 | | 14 | | 32.75 | 49.9 | 50.0 |
| May 26 | 0900 | 40°18.4' | 68°13.21 | | 16 | | | 49.7 | 50.7 |
| May 26 | 1000 | 40° 07' | 68° 181 | | 18 | | 32.52 | 51.3 | 51.4 |
| May 26 | 1100 | 39*57.61 | 68° 23' | | 20 | | | 53.4 | 53.0 |
| May 26 | 1200 | 39°48.21 | 68°27.31 | | 21 | | 33, 21 | 56.1 | 55.7 |
| May 26 | 1300 | 39°52.7' | 68° 321 | | 23 | | | 58.5 | 56.4 |
| May 26 | 1400 | 40°02.3' | 68°35.81 | | 25 | | 32.41 | 52.5 | 53.3 |
| May 26 | 1500 | 40°11.5' | 68°40.5 | | 26 | | | 51.1 | 48.4 |
| May 26 | 1610 | 40° 24' | 68°46.7 | 15 | 28 | | 32.40 | 50.1 | 45.5 |
| May 26 May 26 | 1900 2000 | 40°36.4' 40°45.4' | 68°51.1' | ~ ~ | 33 | | | 46.7 | 43.6 |
| May 26 | 2100 | 40°54.7' | 69°00.31 | | 35 37 | | 32,61 | 45.3 | 45.1 |
| May 26 | 2200 | 40°50.91 | 69°03.81 | | 38 | | 32.45 | 45.2 45.6 | 45.4 |
| May 26 | 2300 | 40°40.51 | 69°08.81 | | 40 | | 54.45 | 45.7 | 45.0 |
| May 26 | 2400 | 40°30.31 | 69°12.6' | | 42 | | 32.35 | 47.0 | 46.3 |
| May 27 | 0100 | 40°20.51 | 69° 16' | | 44 | | | 50.7 | 50.7 |
| May 27 | 0200 | 40°10.31 | 69°20.21 | | 45 | | 32, 27 | 51.6 | 51.5 |
| May 27 | 0300 | 40°00.91 | 69° 251 | | 47 | | | 51.2 | 47.9 |
| May 27 | 0405 | 39*49.31 | 69°29.21 | | 50 | | 32.55 | 52.4 | 52.0 |
| May 27 | 0500 | 39*49.51 | 69°32.51 | | 51 | [| | 52.2 | 51.8 |
| May 27 | 0600 | 39°58.51 | 69°38.81 | | 53 | | 32.11 | 52.1 | 52.5 |
| May 27 | 0700 | 40°08.41 | 69°45.21 | ~ ~ | 55 | | | 52.7 | 52.1 |
| May 27 | 0800 | 40°18.5' | 69°51.7' | | 57 | | 32.32 | 52.3 | 52.7 |
| May 27 | 0900 | 40°28.91 | 69°56.3' | | 59 | | | 51.5 | 51.6 |
| May 27 | 1000 | 40°38.51 | 70°02.81 | | 61 | | 32.41 | 49.3 | 48.9 |
| May 27 | 1100 1200 | 40°36.21 | 70°09.91 | 1.0 | 63 | | | 50.3 | 50.2 |
| May 27 | 1200 | 40-26.51 | 70°14.81 | 16 | 64 | | 32.58 | 52.4 | 52.2 |

Table 5. --Date, time, and position for temperature and salinity records in relation to 1-meter tows and Hardy Plankton Recorder gauze sections Albatross III cruise no. 61, May 16-28, 1955--Continued

| | Lat | | v . | | Cartana | 10 | Surf | ace | 10- |
|--|--|---|---|----------------|--|---|--|--|--|
| Date | Time | itude N. | Longi- tude W. | 1-meter tow | Surface gauze section | 10-meter gauze section | Salin- ity | Tem- pera- ture | meter tem- pera- ture |
| May 27 May 28 May 28 | 1500 1600 1700 1805 1900 2000 2100 2200 2300 2400 0300 0400 0505 0600 0700 0800 0900 | 40°11.7' 40° 02' 39°51.2' 40°05.7' 40°14.8' 40°23.8' 40°32.7' 40°40.7' 40°32.3' 40°07.5' 40°07.5' 40°09.1' 40°18.8' 40°28.1' 40°37.8' 40°28.1' 40°37.8' 40°55.2' | 70° 40' 70° 45,5' 70° 45,5' 70° 53,3' 71° 01,9' 71° 09,6' 71° 17,2' 71° 24,3' 71° 36,5' 71° 53' 71° 56,8' 71° 56,8' 71° 56,8' 71° 57,3' 71° 58,4' 71° 47,3' | 17 | 68 70 73 75 77 78 81 83 85 loading 7 1 3 5 7 9 11 13 15 17 | loading 6 3 5 8 10 12 14 16 17 20 loading 7 25 28 30 31 34 36 38 39 42 44 | 32. 90 32. 36 32. 36 31. 61 31. 45 31. 15 | °F. 52.9 57.1 58.0 52.8 52.8 52.4 55.8 55.0 54.6 54.6 55.8 55.2 55.3 | °F. 51.4 54.9 57.7 53.1 52.7 52.4 52.3 50.9 53.1 56.0 54.6 54.6 55.8 52.8 55.0 |
| May 28 May 28 | 1100 1200 | 41° 01' 41°07.2' | | | 21 23 | 46 48 | 32.00 | 55.6 55.5 | 54.5 |
| May 28 May 28 | 1300 1400 | 41°13.1' 41°17.4' | 71°14.5' 71° 00' | 18 | 25 27 | 50 52 | 32.26 | 56.2 53.9 | 53.2 53.5 |

Table 6.--Stages and sizes of fish eggs and larvae taken with 1-meter net on Albatross III cruise no. 57, February 21 to March 2, 1955

| | Tow | | 0 | Number | Modal | Number | Average | |
|-----|---------|------|--------------------------------------|------------------|------------------|---------------------------------|--|--|
| No. | Date | Time | Species | of eggs | stage | of larvae | diameter or length | Range |
| 1 | Feb. 22 | 0630 | - | - | - | - | mm. - | mm. - |
| 2 | Feb. 22 | 1830 | H-C A *H *C *A | 6 2 | V V - - | - 6 2 14 | 1.53 2.20 4.05 4.10 5.14 | 1.50-1.58 2.16-2.24 3.74-4.31 3.83-4.36 4.80-5.80 |
| 3 | Feb. 23 | 0430 | H-C *H *C | 166 | V | 90 44 | 1.54 4.08 4.49 | 1.41-1.72 3.43-4.53 3.92-5.06 |
| 4 | Feb. 23 | 0645 | *H | - | - | 1 | Unmeasurable | - |
| 5 | Feb. 24 | 1630 | *H *C *A | - - - | - - - | 2 1 7 | 2.66 4.27 5.29 | 2.60-2.73 - 4.80-5.63 |
| 6 | Feb. 25 | 0630 | | - | - | - | - | - |
| 7 | Feb. 25 | 0230 | - | - | - | - | - | - |
| 8 | Feb. 26 | 1430 | H-C A *H *C | 91 1 - | | - 81 5 | 1.52 2.42 4.01 4.54 | 1.14-1.67 - 3.43-4.62 3.96-4.93 |
| 9 | Feb. 27 | 0630 | H-C A *H *C | 2 1 - | V V - | - 2 2 | 1.34 2.77 4.22 3.58 | 1.10-1.58 - 4.00-4.44 3.43-3.74 |
| 10 | Feb. 27 | 1830 | H-C *H *C H P E WO | - - - - | I | 140 93 2 2 22 10 | 1.57 3.75 3.96 5.10 5.80 57.50 23.00 | 1.36-1.80 3.21-4.36 3.61-4.31 4.00-5.20 4.00-8.00 55.50-62.50 |
| 11 | Feb. 28 | 0620 | H-C A *H *C *A | 66 12 - | V V - - | 88 10 13 | 1.55 2.36 4.10 4.52 5.22 | 1.41-1.72 2.11-2.55 3.52-4.84 4.18-5.10 4.14-5.68 |
| 12 | Feb. 28 | 1830 | *H *A | - | - - - | 6 | - 4.30 5.24 | 3.87 <u>-</u> 4.53 |
| 13 | Mar. 1 | 0630 | - | - | - | - | - | - |
| 14 | Mar. 1 | 1830 | - | - | - | - | - | - |

^{*}Hatched aboard ship.

Table 7.--Stages and sizes of fish eggs and larvae taken with 1-meter net on Albatross III cruise no. 58, March 19 to April 1, 1955

| | Tow | | Consider | Number | Modal | Number | Average diameter | Range |
|-----|---------|------|--|--------------|------------------|---------------------------------------|--|---|
| No. | Date | Time | Species | of eggs | stage | of larvae | or length | Range |
| 1 | Mar. 20 | 0035 | H-C A G¹ *H *A G' C GE AM | 9 1 45 | VI VI | - - 26 7 7 3 1 1 | mm. 1.49 2.11 1.75 5.37 4.34 5.58 5.00 63.0 31.0 | mm. 1,36-1,58 - 1,63-2,16 3,34-4,58 4,80-5,76 3,87-4,80 4,75-6,00 |
| 2 | Mar. 20 | 1815 | H-C A *H *C *A H P HE | 31 4 | V II | 47 21 4 1 12 14 12 | 1.41 2.21 4.20 4.59 5.17 4.20 19.0 34.6 25.2 | 1.28-1.54 2.11-2.24 3.52-4.75 3.96-5.28 4.71-5.54 |
| 3 | Mar. 21 | 0615 | C *H *C *A | 1 - - | VI - - | 2 11 1 | 1.67 4.49 4.65 5.76 | 4.27-4.71 4.05-5.06 |
| 4 | Mar. 21 | 1730 | W RO P | - | - - - | 2 1 31 | 20.0 21.0 21.4 | 13.0-28.0 |
| 5 | Mar. 23 | 1330 | *H *A W AM P | - | - - - - | 6 1 2 1 | 4.15 5.28 23.5 21.0 18.5 | 3.74 <u>-</u> 4.66 - 22.0 <u>-</u> 25.0 |
| 6 | Mar. 24 | 1320 | H_C A *A AM | 16 3 - | I - - | - - 7 1 | 1.50 2.32 5.18 29.0 | 1.41-1.63 2.20-2.42 4.84-5.76 |
| 7 | Mar. 25 | 0030 | *H HE E P | - | - - - - | 3 31 1 7 | 4.09 37.2 57.0 20.6 | 3.70-4.40 31.0 -47.0 - 15.0 -27.0 |
| 8 | Mar. 25 | 1815 | W HE AM | - | - | 2 1 1 | 21.0 36.0 19.0 | 20.0 -22.0 |
| 9 | Mar. 26 | 0635 | AM | - | - | 2 | 17.0 | 16.0 -18.0 |
| 10 | Mar. 29 | 1915 | H-C Y *H | 76 1 | V V | - 146 | 1.45 0.88 3.96 | 1.32-1.58 - 3.34-4.66 |

See footnotes at end of table.

Table 7.--Stages and sizes of fish eggs and larvae taken with 1-meter net on $Albatross\ III$ cruise no. 58, March 19 to April 1, 1955--Continued

| | Tow | | Species | Number | Modal | Number | Average diameter | Range |
|-------------|---------|-------|--|---|-----------------------------------|--------------------------------------|--|---|
| No. | Date | Time | Opecies | eggs | stage | larvae | or length | nange |
| 10 Cont. | | | *C *Y AM U | - | - - - - | 24 5 1 | mm. 4.32 2.55 25.0 12.0 | mm. 3.65-4.62 2.51-2.60 - |
| 11 | Mar. 30 | 0640 | *H *A | - | - | 1 15 | 3.96 4.90 | 3.96-5.72 |
| 12 | Mar. 30 | 1530 | H-C *H *C *A | 56 - - - - | V | 36 42 2 1 | 1.44 3.89 4.18 5.28 8.5 | 1.32-1.58 3.17-4.40 3.39-4.80 5.06-5.50 |
| 13 | Mar. 31 | 0250 | H_C A Y *H *C *Y *A HE AM | 56 1 4 - - - - - | V III V - - - - | 101 42 2 2 15 1 | 1.46 2.20 0.86 3.92 4.16 3.12 5.22 39.1 24.0 28.0 | 1.32-1.58 - 0.84-0.88 3.08-4.49 3.08-4.75 2.99-3.25 4.93-5.50 33.0 -45.0 |
| 14 | Mar. 31 | 1.500 | H-C A *H *C *A *Y P AM HE C | 308 42 - - - - - - | V | 325 73 30 1 5 11 1 | 1.44 2.26 3.80 4.21 5.11 3.12 23.6 23.6 36.0 4.00 | 1.28-1.63 1.89-2.55 3.08-4.62 3.39-4.97 4.49-6.25 17.0 -31.0 12.0 -36.0 |
| 15 | Apr. 1 | 1310 | H-C Y *H *C *A *Y | 5 8 - - - | II V - - | - 6 7 1 | 1.29 0.87 4.03 4.13 4.27 2.70 | 1.28-1.32 0.79-0.92 3.78-4.27 3.96-4.71 - 2.38-2.99 |

¹Measured after being taken from gelatinous mass.

^{*}Hatched aboard ship.

Table 8.—Stages and sizes of fish eggs and larvae taken with 1-meter net on $Albatross\ III$ cruise no. 60, April 19 to May 2, 1955

| | Tow | | Species | Number | Modal stage | Number | Average diameter | Range |
|-----|---------|------|--|----------------------------|------------------------------|-----------------------------|--|--|
| No. | Date | Time | | eggs | | larvae | or length | |
| 1 | Apr. 20 | 0630 | CU *CU WH HE | 2 - | III - - | 6 2 1 | in mm. 1.38 3.70 41.5 24.0 | in mm. 1.36-1.41 3.26-4.44 40.0 -43.0 |
| 2 | Apr. 20 | 1815 | H-C *H | 17 - | v - | 31 | 1.46 4.11 | 1.32-1.67 3.52-4.62 |
| 3 | Apr. 21 | 0615 | Р | _ | - | 6 | 20.7 | 12.0 -37.0 |
| 4 | Apr. 21 | 2245 | P W HE | - - | - - - | 12 19 125 | 27.8 26.4 37.5 | 22.0 -35.0 20.0 -40.0 29.0 -50.0 |
| 5 | Apr. 22 | 1545 | H-C A *H *A W HE AM P | 6 3 | III V - - - - | - 7 12 4 2 5 | 1.54 2.32 4.12 5.27 28.0 36.5 15.0 21.5 | 1.36-1.63 2.20-2.51 3.08-4.58 4.93-5.63 20.0 -48.0 35.0 -38.0 12.0 -16.0 20.0 -23.0 |
| 6 | Apr. 23 | 0945 | H-C A *H *C *A | 110 7 - - - | IV . | - 41 16 6 | 1.47 2.20 4.11 4.43 5.28 27.0 | 1.28-1.58 1.50-2.46 3.17-4.97 3.30-5.02 4.66-5.98 |
| 7 | Apr. 24 | 0030 | *H *CU *RO HE AM | - | - | 2 2 6 39 1 | 3.87 4.29 2.08 39.8 35.0 | 3.56-4.18 4.22-4.36 1.94-2.20 35.0 -45.0 |
| 8 | Apr. 27 | 1605 | H-C A Y *H *C *A W P | 7 6 1 - - - | V V V - - - | 18 7 8 2 2 3 | 1.43 2.08 0.84 4.51 4.53 5.53 24.0 25.0 | 1.32-1.54 1.76-2.24 |
| 9 | Apr. 28 | 1235 | H-C CU *H *CU | 13 13 - | V V - | - 15 7 | 1.47 1.34 3.94 4.00 | 1.36-1.58 1.23-1.41 3.61-4.31 3.61-4.36 |
| 10 | Apr. 28 | 2335 | *H | - | - | 2 | 4.05 | 3.52-4.58 |
| 11 | Apr. 29 | 1830 | *Y *A P | - - - | - - - | 7 1 1 | 2.62 4.40 18.0 | 2.29 - 3.04 - - |

See footnote at end of table.

Table 8.--Stages and sizes of fish eggs and larvae taken with 1-meter net on $Albatross\ III$ cruise no. 60, April 19 to May 2, 1955--Continued

| | Tow | | Species | Number of | Modal | Number | Average diameter | Range |
|-----|-------|------|--|--------------|---------------------------------|------------------------------|--|--|
| No. | Date | Time | | eggs | stage | larvae | or length | Italige |
| 12 | May 1 | 0755 | H-C CU *H *CU P | 3 9 - | V V - - | 3 23 2 | in mm. 1.38 1.32 3.46 3.89 21.0 | in mm. 1.28-1.45 1.28-1.41 3.08-3.92 2.99-4.27 18.0 -24.0 |
| 13 | May 2 | 0600 | H-C A Y CU *H *C *A *Y H | 50 2 3 1 | V V V - - - - | 90 13 8 8 1 5 | 1.37 1.98 0.85 1.36 4.08 4.49 5.49 2.87 16.0 30.8 | 1,23-1,45 1,85-2,11 0,79-0,88 |
| 14 | May 2 | 2100 | - | - | - | - | | - |
| 15 | May 3 | 1015 | H Y RO WE | | - | 1 3 1 2 | 3.65 2.66 1.98 2.97 | 2.51-2.82 - 2.86-3.08 |

^{*}Hatched aboard ship.

Table 9.--Stages and sizes of fish eggs and larvae taken with 1-meter net on Albatross III cruise no. 61, May 16-28, 1955

| | Tow | -1 | | Number | | Number | Average | |
|-----|--------|------|------------------------------------|-----------------------------|-----------------------|---|--|--|
| No. | Date | Time | Species | of eggs | Modal stage | of larvae | diameter or length | Range |
| 1 | May 17 | 0015 | *WF A H WH | - - - - | | 5 3 3 2 | in mm. 4.88 7.00 3.83 30.0 | in mm. 4.57-5.41 7.00-7.00 3.50-4.00 28.0 -32.0 |
| 2 | May 17 | 1830 | *H *C *Y *RO P H | | - - - - - | 3 1 6 1 3 | 4.06 4.31 2.78 2.29 23.3 9.0 | 3.87-4.27 2.42-3.08 - 22.0 -24.0 |
| 3 | May 18 | 1220 | H-C CU RO WF *H *CU *WF *RO SY | 10 6 2 3 - - | V V V V | - - - 22 12 12 12 6 1 | 1.39 1.29 0.84 1.32 4.09 4.18 4.74 2.06 2.42 12.2 | 1,36-1,45 1,23-1,36 0,84-0,84 1,32-1,32 3,65-4,40 3,87-4,62 4,36-5,15 1,89-2,16 |
| 4 | May 19 | 0615 | H-C CU *H *C *CU WH | 1 3 - - | V V - - - | - 6 3 4 | 1.36 1.25 4.04 4.12 4.14 47.0 | 1.19-1.28 3.56-4.40 4.00-4.28 3.83-4.36 |
| 5 | May 19 | 1830 | P | - | - | 1 | 19.0 | - |
| 6 | May 20 | 1215 | RO *RO | 25 - | II - | - 4 | 0.82 1.82 | 0.79 - 0.88 1.76 - 1.94 |
| 7 | May 21 | 0615 | H-C *H CU RO | 2 - | V - - - | 1 1 1 | 1.36 3.65 3.95 2.07 | 1.32-1.41 - - - |
| 8 | May 21 | 1815 | CU *CU AM | 39 - - | V - - | - 6 1 | 1.27 3.80 22.0 | 1.18-1.36 3.56-4.18 |
| 9 | May 22 | 1210 | - | - | - | - | - | - |
| 10 | May 23 | 0015 | M *RO *M P WH SC H R AM | 2 | IV | - 4 1 5 1 1 2 50 1 | 1,30 2,04 3,78 31,4 40,0 15,0 5,00 6,50 21,8 12,0 | 1.28-1.32 1.80-2.29 28.0 -35.0 - - - 6.00-7.00 12.0 -43.0 |

See footnote at end of table.

Table 9.--Stages and sizes of fish eggs and larvae taken with 1-meter net on Albatross III cruise no. 61, May 16-28, 1955--Continued

| | Tow | | | Number | Modal | Number | Average | P |
|-----|--------|------|--|--------------------------------------|--------------------------------------|---|---|--|
| No. | Date | Time | Species | of eggs | stage | of larvae | diameter or length | Range |
| 11 | May 23 | 1820 | H-C Y RO WF *H *CU *Y *RO *WF H H WH P | 1 4 2 1 1 | III V IV III | - - 1 1 1 9 10 1 1 1 1 3 | in mm. 1.41 0.89 0.82 1.19 4.18 4.14 2.88 1.96 4.97 22.0 36.0 20.0 | in mm. 0.84-1.01 0.79-0.84 - 2.55-3.21 1.89-2.16 13.0 -25.0 |
| 12 | May 24 | 1215 | Y CU H-C *Y *CU | 20 6 1 - | V VI | - - 69 11 | 0.85 1.24 1.32 2.71 3.93 | 0.79-0.88 1.19-1.28 - 2.11-3.12 3.52-4.40 |
| 13 | May 25 | 1615 | *WF *Y H A | - - - | - - - | 10 1 4 3 | 4.61 2.99 9.62 19.3 | 4.05-5.15 - 7.00-16.0 17.0 -20.0 |
| 14 | May 26 | 0020 | SH *SH *WF R WH | 47 - - - - | v - - - | 38 1 1 6 | 91.0 3.20 5.50 10.0 34.8 | 84.0 -97.0 2.73-3.52 - 30.0 -44.0 |
| 15 | May 26 | 1630 | WF Y *WF *Y *CU *RH | 13 18 - - - | II V - - | 10 30 2 1 | 1.24 0.84 4.64 3.13 4.24 2.07 | 1.14-1.32 0.79-0.88 4.09-5.15 2.38-3.52 3.39-4.18 |
| 16 | May 27 | 1215 | WF RO RH *WF *RO *RH H | 3 2 1 - - | V V - - | 9911 | 1.25 0.86 0.70 4.17 1.93 1.85 | 1.19-1.32 0.79-0.92 - 3.52-4.80 1.76-2.11 |
| 17 | May 28 | 0015 | *RO R H P Y RO E SH WH | - - - - - - - - | - - - - - - - - | 1 1 2 66 3 1 57 22 | 1.76 9.5 25.0 25.5 7.63 17.7 53.0 11.4 39.3 | 25.0 -26.0 4.00-13.0 5.00-25.0 - 7.00-16.0 29.0 -55.0 |

See footnote at end of table.

Table 9.--Stages and sizes of fish eggs and larvae taken with 1-meter net on Albatross III cruise no. 61, May 16-28, 1955--Continued

| | Tow | | Consiss | Number | Modal | Number | Average diameter | Penge | |
|-----|--------|------|---------------------------|-------------------|------------|------------------|---------------------------------|--|--|
| No. | Date | Time | Species | eggs | stage | larvae | or length | Range | |
| 18 | May 28 | 1410 | M RH *M *RH H | 32 6 - - | V V | - 2 2 1 | in mm. 1.11 0.84 2.70 2.09 11.0 | in mm. 1.01-1.23 0.75-0.92 2.46-2.95 1.98-2.20 | |

^{*}Hatched aboard ship.

Table 10.--Stages and sizes of fish eggs and larvae taken with the Hardy Plankton Recorder on $Albatross\ III$ cruise no. 57, February 21 to March 2, 1955

Surface

| Surface | | | | | | | | | | | | |
|----------------|--|------------------|-------------|------------------|------------------|-------------|-------------|--------|---------------|------------------|--------------|-------------|
| Loading number | Gauze section | Species | | | mber of | | | | | Larva | ie | |
| TIGMO 61 | Section | | I | II | III | IA | V | VI | Species | Number | Length | Range |
| 1 | 2 - 28 29 - 30 | - | - | - | - | - | - | - | - | - | mm. - | mm. - |
| | 31 32–49 51 52 | - H - | - | - | 1 | - | - | - | LP - HE | 1 - - 1 | - - 33 | - - - |
| | 53 - 58 59 60 61 | - Н - н | - | - | 2 | - - - | 2 - | - | - - - | - | - - - | - |
| | 62 63 | H H C | - | - - - | - | - - 1 | 2 2 - | - | - - - | - | - | - - - |
| | 64 65 66 - 67 68 | Н Н - Н | - | - | 1 - 1 | 1 - | - - 1 | - | - - - | - | - | - |
| | 69 71 72 - 98 | н н | - - | - - - | 1 - | - | - - | - - | - - - | - | - | = |
| 2 | 1-21 23 24-26 | - н - | - | - | 1 - | - | - | - | - - - | - | - - - | - |
| | 27 28 – 34 35 36 | Н - Н Н | - | - | - 1 1 | | 1 | - | - | - | - | - |
| | 37 - 43 45 - 63 64 - 96 97 | - - - H | - | - | - - - 1 | - | - | - | - | - | - | = |
| 3 | 1 - 2 | <u>-</u> н | - | - | 3 | 2 | - | - | - - - | - | - | - |
| | 4 5 6 | H H C H | - | - - - 1 | 1 3 - | 1 - | 1 | - | - | - | - | - |
| | 7 | C H C | - | 2 | 4 | 1 - | - 2 | 1 - | - | - - - | - | - |
| | 9 | H C H C | 2 | 2 - 1 1 | 4 1 1 | 2 2 | 1 - 1 | | - - - | - | - - - | - |
| | 10 11 12 | H C H H | 1 - - | - | - - 1 | 1 1 - | - | 1 1 1 | - | - - - | - | - |
| | 13 14 15-27 | н Н Н | - - - | 1 | 1 | - | - | - | - | - | - | - |

Table 10.--Stages and sizes of fish eggs and larvae taken with the Hardy Plankton Recorder on *Albatross III* cruise no. 57, February 21 to March 2, 1955--Continued

| 2011 acecontrined | | | | | | | | | | | | | |
|-------------------|--|---------|---|----|--------|----|---|-----|---------|--------|-------------|-------|--|
| Loading | | Species | | | per of | | | | | Larvae | | | |
| | Bection | | I | II | III | IV | V | VI | Species | Number | Length | Range | |
| number 3 Cont. | 32-36 37 38-47 48 49 50 51 52 53 54 55 56 57 58 59-62 63 64-65 66 67 70 71 73 74 75 76-83 84 85 86 87 88 89 1-3 4 5-10 11 12-15 16 17 18 19 20-37 39-42 43 44 | | 1 | T | | | 1 | VI | Species | Number | Length mm. | Range | |
| | 45 | A H | - | - | 1 | - | - | 1 - | - | - | - | - | |

Table 10.--Stages and sizes of fish eggs and larvae taken with the Hardy Plankton Recorder on Albatross III cruise no. 57, February 21 to March 2, 1955--Continued

| Surface-Continued | | | | | | | | | | | | |
|-------------------|---|--|--------|----|-----------------------|--------|-----|----|---------|--------|--------|-------|
| Loading | Gauze section | Species | | | mber o | | | | | Larv | ae | |
| number | Section | | I | II | III | IV | v | VI | Species | Number | Length | Range |
| 4 Cont. | 46 47 48 49 50 51 52 53 54 55–68 | H C H H H H H | 1 | | 3 - 1 1 1 4 4 2 - 2 - | 1 1 1 | 1 | 1 | - | | mm. | mm. |
| | | | | | 11 |) Mete | rs | | | | | |
| 1 | | HHCCHHHCCHHHCCHHHCCHHHCCHHHCCHH | ost on | | | | 1 1 | | - | - | - | - |
| 3 | 1-2 3 4 5 6 7 8 9-17 21-29 30 31 32 35 36 37-42 43 44 45 | - - - - - - - - - - - - - - | | | | | | 1 | C-H | 1 | 5,2 | |

Table 10.--Stages and sizes of fish eggs and larvae taken with the Hardy Plankton Recorder on Albatross III cruise no. 57, February 21 to March 2, 1955--Continued

10 Meters--Continued

| Loading number | Gauze section | Species | | | mber o | | | , | | Larv | ae | |
|----------------|----------------------|---------|---|----|--------|----|-----|----|---------|--------|--------|-------|
| IIQIIID C1 | 50001011 | | I | II | III | IV | V | VI | Species | Number | Length | Range |
| | | | | | | | | | | | mm. | mm. |
| 3 Cont. | 46 48 | H H | _ | _ | 1 | 1 | _ | - | _ | _ | _ | _ |
| | 49-58 | A _ | - | - | _ | - | 1 - | _ | _ | _ | - | _ |
| | 59 | Н | _ | _ | _ | _ | _ | 1 | _ | _ | _ | - |
| | 60 62 - 65 | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ |
| | 66 | - | - | - | - | - | - | - | HE | 1 | 31 | - |
| | 67 – 68 69 | _ | _ | _ | _ | _ | _ | _ | HE | 1 | 37 | _ |
| | 70 71 | - | - | - | - | - | - | - | R U | 1 | 6.1 | - |
| | 72 - 87 | _ | - | _ | _ | _ | _ | _ | - | _ | - | _ |
| 4 | 1-20 | - | - | - | - | - | - | _ | - | - | - | - |

Surface

| number s | Gauze section | Species | | Nu | umber o | of eggs | in age | | | Larva | ie | |
|----------|---|--|---|-------------|-----------------------------------|---------|---------------------|-------------|-------------------------------------|--------|--------|-------|
| ummet. | section | | I | II | III | IV | V | VI | Species | Number | Length | Range |
| 1 | 1-24 27-51 52 53 54 55 57 58 59 60 61 62 63 64 65 66 | | | | 1 - 1 - 2 - 2 6 - 3 - 3 2 1 3 - 3 | | 1 1 1 1 1 2 1 1 2 1 | | HE HE HE - U - AM | 1 1 | mm | mm. |
| 2 | 67-71 72 73-76 77-89 90 91-92 1-21 22 23-25 26 27-29 35-37 38 39-63 64 65 66 67-72 73 75 76 77-87 88 89 90 91 | - H - H - H - H - H - H - H - H - H - H | | | | | | | W | | 26 | |
| 3 | 1 - 25 26 27 - 28 | - H - | - | - - - | 1 - | | - - - | - - - | - - - | | - | - |

| Coading Cause Species Species Indicated stage Species Indicated stage Species Species | | | | | | | , , , , , , , , | | | | | | |
|---|--------|---------|---------|---|----|-----|-----------------|---|-----|---------|--------|--------|-------|
| 3 29 | | | Species | | | | | | | | Larva | 10 | |
| 3-cont. | number | Section | | I | II | III | IV | V | VI | Species | Number | Length | Range |
| 32 | | | Н | _ | _ | _ | 1 | | _ | _ | - | | - |
| 33 | Cont. | | | 1 | | | | | _ | | | _ | ! |
| 35 | | | | | | | | - | _ | 1 | | | 1 |
| 36 | | | | | | 1 | | | | (| | | |
| 37-38 | | | | | | | | | | i . | | | |
| A0 | | 37-38 | _ | - | - | | | | | | | 1 | |
| 41 | | | | | | | | | | | 1 | 3 | |
| 43-45 | | | | 1 | | | | | ł . | | | | |
| 49-51 - <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td>1</td> <td></td> | | | | | | | | | 1 | | | 1 | |
| 52 | | | | | | 1 | | | | | | | i . |
| 54 | | | _ | | | 1 | - | | | P | 1 | 14 | - |
| 55 | | | | | | | | | | | | | |
| 56 | | | | | | | | | | | | 1 | |
| 58 | | 56 | Н | - | - | 1 | | | 1 | | | | |
| 59 | | | | | | | | | 1 | | | | |
| 60 | | | | | | | | | 1 | | | 1 | 1 |
| 66-71 | | 60 | H | | | | | | | | | | |
| 72 73-83 84 H | | | | | | | | | | | | | i |
| 84 | | | | | | | - | - | - | | - | 1 | ł. |
| 85 | | | | | | | | | 1 | | | | 1 |
| 86 | | | | | | | | | | | | | t |
| 88 | | 86 | H | - | 2 | | - | | | | | | Į. |
| 89 | | | | | | | | 1 | | | | | |
| 4 1 | | | | | | | | 1 | | | | | 4 |
| 4 1 | | | | | | | | | | | 1 | | 1 |
| 2 | | 91 | H | - | | 2 | - | 1 | - | _ | _ | _ | _ |
| 3-4 | 4 | | | - | - | | - | - | - | | | | |
| 5 H 1 1 | | | | | | | | 1 | | 1 | | | |
| 7 H 2 2 1 | | | | | | 1 | _ | _ | | _ | - | - | - |
| 8 H 1 | | | | | | | | | | | | | |
| 9-11 | | | | | | | | | | | 1 | l . | |
| 13 H 2 1 14 H 1 - 1 | | 9-11 | _ | | | - | 1 | - | | | - | - | |
| 14 H 1 1 1 | | | | | | | | | 1 | | | | |
| 15 H 1 2 3 H 2 | | | | | 1 | | | | _ | | | | |
| 23 H 2 2 24 H 2 | | 15 | | | - | 1 | | 1 | 1 | } | | | |
| 24 H 2 | | | | | | | 1 | 1 | | 6 | | | |
| | | | | | | | | | | 1 | 1 | - | - |
| | | 25-29 | - | - | - | - | - | - | - | - | - | - | - |

Table 11.--Stages and sizes of fish eggs and larvae taken with the Hardy Plankton Recorder on Albatross III cruise no. 58, March 19 to April 1, 1955--Continued

| | Surracecontinued | | | | | | | | | | | | |
|-------------------------|---|--|---|----|---|--------|---|----|---------|--------|--------|-------|--|
| Loading | Gauze | Species | | | ber of | | | | | Larv | ae | | |
| number | section | | I | II | III | IA | V | VI | Species | Number | Length | Range | |
| Loading number 4 Cont. | Gauze section 30 31 32 33 34 35 36 38 39 40 41 42 43 44 45 46 47 48 49 | Species H H H C H C H C H C H C H C H C H C | I | in | dicate | d stag | e | VI | Species | | | mm. | |
| | 50 51 52 53 54 55 56 57–64 65 66 67 68 69 | C H C H C H C H C H C H C H C H C H C H | | | 3 1 4 1 2 1 3 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 | 1 2 2 | | | U | 1 | 40 | | |

Table 11.--Stages and sizes of fish eggs and larvae taken with the Hardy Plankton Recorder on Albatross III cruise no 58, March 19 to April 1, 1955--Continued

| | Number of eggs in Larvae | | | | | | | | | | | |
|------------|---|---|---|------------------|-------------------|-------|---|------------------|------------------------|---|--|---------------|
| Loading | Gauze section | Species | | | nber of | | | | | Larva | e | |
| number | section | | I | II | III | IV | V | VI | Species | Number | Length | Range |
| 4 Cont. | 70 71 | H C H C | | - - - - | 1 | - | 1 1 3 1 | 1 - 4 1 | | | mm. - - | mm. - - |
| 5 | 1 2 3-7 8 9-15 16 17 18 19-20 21 22-23 24 25-26 27 28-34 | - - - - - - - - - - - - - - - - - - - | - | | 1 | - | 1 1 1 | | AM | 1 | - 14 - - 49 45 - - - 4.18 | - |
| | | | | | 10 | Meter | `s | | | | | |
| 1 | 1-22 25-38 39 40-46 47 48-50 61 62 63 64 65 66 67 68 69-74 75 76-80 81-82 83 84 85-95 | - - - - - - - - - - - - - - - - - - - | | | 1 2 1 5 1 1 1 - 1 | 1 | 1 | | AM - C U - H - WO RE - | 1 - 1 - 1 - 1 - 1 - 1 3 3 - 1 | - 8 - 16 - 8 8 | |
| 2 | 1-19 20 21 22-27 28 | - Н Н - | - | 1 - 1 | 1 | | - | | - - - - U | - - 1 | - - - 9 | - |

Table 11.—Stages and sizes of fish eggs and larvae taken with the Hardy Plankton Recorder on $Albatross\ III$ cruise no. 58, March 19 to April 1, 1955—Continued

10 Meters--Continued

| | | | | | | D. D 00 | | | | | | |
|----------------|--|-------------|-----|--------|--------|-------------------|---|----|---------|--------|-----------|----------|
| Loading number | Gauze section | Species | | | | f eggs ed stag | | | | Larva | ie. | |
| number | Section | | I | II | III | IV | V | VI | Species | Number | Length | Range |
| 2 | 29-30 | - | - | - | - | - | - | - | - | - | mm. - | mm. - |
| Cont. | 34 <u>-</u> 40 41 | H | - | 1 | - | _ | - | _ | _ | _ | - | _ |
| | 42 – 63 64 | Н | _ | 1 | - | _ | - | - | - | - | - | - |
| | 65 66 – 72 75 – 83 | H - | _ | 1 - | - | _ | - | _ | _ | - | - | _ |
| | 84 85 - 91 | H | - | 1 | 1 | - | - | - | - | _ | - | - |
| 3 | 1-23 | _ | _ | | - | _ | _ | _ | _ | _ | _ | _ |
| | 25 26 | H H | - | - | 1 | - | - | - | _ | - | - | - |
| | 27 - 28 29 | - н | - | 1 | - | - | - | - | _ | - | - | - |
| | 30 - 34 35 | H | - | _ | 1 | - | - | - | - | - | - | _ |
| | 36 37 – 38 | H - | - | - | 1 - | - | _ | - | - | _ | - | - |
| | 39 40 41 - 45 | H H - | - | - | 1 | | = | - | - | - | - | - |
| | 48 - 51 52 | _ H | - | - | - 1 | - | - | - | - | - | - | = |
| | 53 54 | H H | - | - | - | - | - | 1 | _ | - | - | - |
| | 55 56 | H H | 1 - | - 1 | 2 | - | - | - | HE H | 1 | 36 5.5 | - |
| | 57-58 | - | - | - | - | - | - | - | C - | 1 - | 10 | - |
| | 62 - 80 81 | - Н | - | - | - 1 | - | - | - | - | - | - | _ |
| | 82 83 | _ | - | - | - | - | - | - | H - | 1 - | 9 | - |

Table 12.--Stages and sizes of fish eggs and larvae taken with the Hardy Plankton Recorder on Albatross III cruise no. 60, April 19 to May 2, 1955

Surface

| Loading | Gauze | | | | | f eggs ed sta | | - H 1 12 - H 1 13 - H 1 13 | | | | |
|---------|---|--|---|-------------------|---|---|---|--------------------------------------|----------------------------|---------------|----------------------------|---|
| number | section | Species | I | II | III | IV | V | VI | Species | Number | Length | Range |
| 1 | 1-2 3 4 5-6 7 8-9 10 11-28 32-49 51-56 57 | - - - - - - H | | | - | - | 1 | - | H H - H - - | 1 1 | 12 - 13 | mm. |
| | 58-61 62 63 64 65 66 67 71 72 73 74 75 76 77 78 79 80-81 82 83 84-91 92 93 94-96 97 98-100+ | - H - H - H - H - H - H - H - H | | 1 2 2 1 1 1 6 4 4 | 1 2 1 1 1 3 4 2 2 6 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 1 | | | - - - - | | 7.5 | 10,5 |
| 2 | 1-8 9 10-11 12 13-14 15 16 17 18 | - | | | - | - | - | - | P P P P P | 1 - 1 2 - 3 - | 25 20 25 17 18 | - - - - 15-20 - 15-20 |

Table 12.--Stages and sizes of fish eggs and larvae taken with the Hardy Plankton Recorder on Albatross III cruise no. 60, April 19 to May 2, 1955--Continued

| | | | | | our i ace | econt | Tured | | | | | |
|-------------------------|---|----------------------------|---------|--------|---------------|-------------|-------|----|---------------------------------|--------|-----------------------|-------|
| Loading | Gauze | Species | | | | eggs d stag | | | | Larv | ae | |
| number | Bection | | I | II | III | IV | V | VI | Species | Number | Length | Range |
| Loading number 2 Cont. | Gauze section 20 21 22 23 24-29 30-37 38 39 40 41 42-44 45 46-49 51-55 56 57 58 59 60 61 62 63 64 65 66 | | | in III | III | IV | V V | | P U | Number | Length mm. 18 - 23 | mm. |
| | 67 68 69 70 | H C H C H C | | | | 5 2 1 2 - 1 | | | - - - - - | - | - | - |
| | 71 72 73 74 75-76 77 78 79 | - H H H H C | 1 1 1 1 | 1 2 - | 1 1 - 1 5 2 - | 1 2 | | | - - - - - - - | 1 | - | |

Table 12.--Stages and sizes of fish eggs and larvae taken with the Hardy Plankton Recorder on Albatross III cruise no. 60, April 19 to May 2, 1955--Continued

| | Number of eggs in Larvae indicated stage | | | | | | | | | | | |
|----------------|---|------------------|------------------|----|-------------|----|---|----|------------------|--------|---------------|---------------|
| Loading number | Gauze section | Species | | | | | | | | Larva | 16 | |
| number. | Section | | I | II | III | IV | V | VI | Species | Number | Length | Range |
| 2 Cont. | 80 81 - 86 87 | H - CU | 1 - | | - - 1 | - | - | | - - - | | mm. - - | mm. - - |
| 3 | 1-13 14 15 16-24 29 30 31-36 37 38 39 40-56 57 58-61 62 63 64 65 66 67 69 70 71 72 73 74 75 76 77 78-81 82 83 84 85 86 87 | RO | | 1 | | | 1 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | - U - AM - C | | 15 | |
| 4 | 1-2 3 4-10 11 12 | - - Y - | - - - - | | | - | 1 | - | - н - н | 1 - 1 | 4.0 | - |

Table 12.--Stages and sizes of fish eggs and larvae taken with the Hardy Plankton Recorder on Albatross III cruise no. 60, April 19 to May 2, 1955--Continued

| | | | | | ouriac | 1 | | | | | | |
|----------------|----------------------------------|------------------|-----|------------------|---------|-----|----------------------------|----|---------------------------------|--------|--------|-------|
| Loading number | Gauze section | Species | | | mber of | | | | | Larva | 36 | |
| 110011001 | 00000000 | | I | II | III | IA | V | VI | Species | Number | Length | Range |
| 4 Cont. | 13 14 15 16 17 18 | Y H Y H | | - - 1 - | 1 | | - 1 - - - 1 | 1 | - - - - - - - | | mm. | mm, |
| | 19 | Н | - | - | - | 1 | - | - | - | - | - | - |
| | 20 22 – 43 | H | _ | 1 - | _ | 1 - | _ | _ | _ | _ | _ | _ |
| | 44 | Н | - | - | - | 1 | - | - | - | - | - | - |
| | 45 46 | H | - | _ | _ | _ | 1 | _ | _ | - | _ | _ |
| | 47 48 | - H | - | - 1 | - | - | - | - | _ | - | - | _ |
| | 49 | Н | - | _ | 1 | _ | 1 | - | _ | 1 | - | - |
| | 50 - 51 52 | - н | _ | _ | 1 | _ | _ | _ | _ | _ | _ | _ |
| | 53 | - | - | - | - | - | - | - | - | - | - | - |
| | 54 55 | H H | 1 | _ | 1 | _ | _ | _ | _ | _ | _ | _ |
| | 56 57 | H H | - | 1 | 1 - | - | - | - | _ | - | - | - |
| | 58 | Н | _ | 1 | _ | _ | _ | _ | _ | _ | _ | |
| | 59 | CU H | 1 | 1 4 | 3 | _ | - | - | _ | _ | _ | _ |
| | | С | - | 1 | - | - | - | - | - | - | - | - |
| | 60 | H C | 1 - | 4 | 2 | 1 - | _ | _ | _ | _ | _ | _ |
| | 61 | Н | 1 | 6 | 1 | 1 | - | _ | - | - | - | - |
| | 62 | C H | _ | 5 | 1 | ~ | _ | _ | _ | _ | _ | _ |
| | 63 | C H | - | 2 | 1 | _ | - | _ | _ | _ | _ | _ |
| | | C | - | 1 | - | - | - | - | - | - | - | - |
| | 64 65 | H H | _ | _ | 1 | _ | - | - | _ | _ | _ | _ |
| | 66 67 | H H | - | - | 1 2 | 1 | - | - | - | - | - | _ |
| | 68 | н Н | - | _ | 2 | - | _ | _ | _ | _ | _ | _ |
| | 69 | H C | - | - | 2 | 1 | - | - | _ | _ | _ | _ |
| | 70 | Н | _ | 1 | 5 | 1 | - | - | ~ | - | - | - |
| | | CU | _ | _ | 2 | 1 - | - | _ | _ | _ | _ | _ |
| | 71 | Н | - | 2 | 3 | - | - | - | - | - | - | - |
| | | CU C | _ | _ | 1 2 | 1 - | _ | - | - | - | _ | _ |
| | 72 | H CU | - | - 1 | 1 - | - | - | - | - | _ | - | - |
| | 73 | Н | _ | _ | 2 | - | - | _ | - | - | - | - |
| | 74 - 78 79 | - Н | - | _ | - | 1 | _ | - | _ | _ | - | _ |

Table 12.—Stages and sizes of fish eggs and larvae taken with the Hardy Plankton Recorder on Albatross III cruise no. 60, April 19 to May 2, 1955—Continued

| Loading number Species Species Species Species I II III IV V V Species Number Length Range | | Number of some in | | | | | | | | | | | | |
|--|---|---|--------------------------------------|-----|---------|--------|------------------|----------|----|------------------|--------|--------|-------|--|
| Tools Tool | | | Species | | Nu i | mber o | f eggs ed sta | in ge | | | Lar | vae | | |
| Cont. 80 Y | | 500 01011 | | I | II | III | IV | V | AI | Species | Number | Length | Range | |
| 2 | | 81 82 – 84 85 86 87 88 | H CU - H H H | - | - | 1 | 1 1 | 1 3 | - | - - H - | 1 | 4.2 | - | |
| | 5 | 1 2 3 4 5 6 7 8 9 10-14 15 16-21 22 23-24 25-28 29 30-31 32 33 34 35 36 37 38 39 40-41 42 | - H Y H H Y - CU - CU - CU H H H R O | | 1 | 1 | 1 | 1 - 1 2 | | H H | | 13 | | |
| | | | | - 1 | | | | | | | | _ | | |

Table 12.--Stages and sizes of fish eggs and larvae taken with the Hardy Plankton Recorder on Albatross III cruise no. 60, April 19 to May 2, 1955--Continued

10 Meters

| | | | | | | 10 110 00 | 71.5 | | | | | |
|----------------|--|---|---|-----|------------------|-----------|------------------|----|--|------------------|---------------------------------|--------------------------------------|
| Loading number | Gauze section | Species | | | mber of | | | | | Larva | 10 | |
| namoor | 50001011 | | I | II | III | IV | v | VI | Species | Number | Length | Range |
| 1 | 17 - 34 36 - 38 39 40 - 43 | - - - - | | | - | | | | - A - H | - 1 - 2 | mm. - 7.5 - 6.5 | mm. - - - 6.5- |
| | 45 46 47 | - - - - | - | - | - - - - | | - - - - | - | C U H A H | 2 1 2 1 2 | 8.5 9.0 7.5 7.5 6.0 | 6.5 7-10 - - 5.6- 6.3 |
| | 48 49 - 58 60 - 61 62 63 64 65 - 90 | - - H H H | - | | 2 2 1 | - | - | - | - - - - | 1 | 6.5 - - - - | - |
| 2 | 1-28 30-35 36 37-59 60 61 62-66 67 68 69 70-76 77 78-87 | | 1 | 5 1 | 1 14 - 1 1 - 1 | 1 1 1 | | | - | | | |
| 3 | 1-7 8 9-23 27 28-37 38 39-65 66 67 69 70 71-77 78 79-85 86 | - - - - - - - - - - - - - - - - - - - | | | 1 | 1 1 1 | 3 | 1 | AM AM H - - - - - | 1 | 31 | |

Table 12.--Stages and sizes of fish eggs and larvae taken with the Hardy Plankton Recorder on Albahoss III cruise no. 60, April 19 to May 2, 1955--Continued

10 Meters--Continued

| Loading number | Gauze section | Species | | Nur | mber of | eggs d sta | in ge | | | Larva | ae | |
|-------------------|--|-------------|--------|-----|---------|---------------|----------|----|--|---------------------------|--|--------------------------|
| TIGHID 61 | 80001011 | | I | II | III | IV | V | VI | Species | Number | Length | Range |
| 3 Cont. | 87 | - | - | - | - | - | _ | - | - | - | m m. | mm. |
| 4 | 1-7 8 - 9-21 23-57 58-70 71 72-77 78 79-88 89 90 91 92 93-94 95 96 97 | | | | | 1 | | | H Y AM C C - - C H | 1 2 - 1 1 - 1 1 2 1 1 2 1 | 6.8 2.7 - - 39 - - - - - - - - - - - - - - - - | 2.7- 2.7- 2.7- |
| 5 | Gear fou | led - No sa | umples | | | | | | | | | |

Table 13.--Stages and sizes of fish eggs and larvae taken with the Hardy Plankton Recorder on Albatross III cruise no. 61, May 16-28, 1955

Surface

| | | | | | | Surfa | ce | | | | | |
|----------------|--|---|---|------|-------------|---------|---------|----|-------------|--------|---------------|--------------------|
| Loading number | Gauze section | Species | | | nber of | | | | | Larv | /ae | |
| Transect | Dec sion | | I | II | III | IV | V | VI | Species | Number | Length | Range |
| 1 | 1 2 3 4 5 | M M RH RH | - | 1111 | 3 1 1 | 2 1 - 2 | | - | - - - | | mm. - - | mm. - - - |
| | 6 7-10 11 12 13 14 15-20 30-47 | RH RH - MH MH - Y | - | 1 | | 1 | 5 7 - 1 | - | - | | | |
| 2 | 48 49 – 50 | - | - | - | - | - | - | - | Н - | 1 - | 4.0 | _ |
| 2 | 1 2-3 4 5-9 10 11 12 13 14 15 16 17 18 19 20 21-31 33 34 35 36-37 38 39-42 43 44 45 46 47-50 51 52-57 58 59-61 63-66 67 68 69 70-75 76 | - н н н н н н н н н н н н н н н н н н н | | | | | | | H | | 30.0 | |

Table 13.--Stages and sizes of fish eggs and larvae taken with the Hardy Plankton Recorder on Albatross III cruise no. 61, May 16-28, 1955--Continued

| | | | | | Juliuc | 50011 | ullidea | | | | | _ |
|-------------------|---|--|-----|----|---------|-------|---------|----|--|-----------|---|----------------------------------|
| Loading number | Gauze section | Species | | | mber of | | | | | Larve | ae | |
| ummper | 80001011 | | I | II | III | IV | V | VI | Species | Number | Length | Range |
| 2 Cont. | 77 78 - 82 | H - | - 1 | - | - | 1 - | - - | - | - | - - | mm, - | mm. - - |
| 3 | 1-9 10 11-13 14 15 16 17 18 19-27 28 29-30 33-41 42 43-44 45 46-48 49 50-53 54 55-58 59 60 61 62 63 64 65 66 69-72 73 74 75-84 85 86 87 88-89 | RO CU RO CU RO CU H H H H H H H CU | | | 2 2 1 | | | | | | 15.0 | |
| 4 | 1-2 3 4 5 6-8 9 10 11 12 | - | - | | | | | | U U W U U U AM AM | 1 1 1 2 1 | 3.0 - - 35 35 35 35 35 | 30-40 30-40 30-40 30-40 |

Table 13.--Stages and sizes of fish eggs and larvae taken with the Hardy Plankton Recorder on Albatross III cruise no. 61, May 16-28, 1955--Continued

| | | | | | burrac | 9001 | Itilideo | • | | | | |
|-----------------|------------------------------------|---------|---|----|--------|------|-------------|----|--|---------------------|-------------------------|-----------|
| Loading | Gauze | Species | | | mber o | | | | | Larv | rae | |
| 110mber | Bec vion | | I | II | III | IV | v | ΔI | Species | Number | Length | Range |
| number 4 Cont. | ## 14 | | Ι | | | | | VI | Species U AM AM AM AM AM - RO RO RO RO RO AM AM AM AM AM AM AM AM AM A | Number - 1 - 2 2 1 | ### Length #### 135 25 | Range mm. |
| | 84 | H Y | - | - | - | 1 | - | - | - | - | - | - |
| 5 | 85 - 86 | - | - | - | _ | - | - | - | - | - | - | _ |
| | 3 4 | - | - | - | - | - | - | - | H H | 1 | 13 | - |
| | 5 - 6 7 8 - 13 | - | - | - | - | - | - | - | н - | 1 - | - | - |
| | 14 | - | _ | - | - | _ | _ | _ | Н | 1 | 15 | - |

Table 13.--Stages and sizes of fish eggs and larvae taken with the Hardy Plankton Recorder on Albatross III cruise no. 61, May 16-28, 1955--Continued

| | | | | | Suriac | econ | tinued | | | | | |
|---------|---|-------------------------|---|----|---|---|--------|----|------------------------------------|--------|--------|-------|
| Loading | Gauze section | Species | | | ber of dicate | | | | | Lar | vae | |
| number | section | | I | II | III | IV | v | VI | Species | Number | Length | Range |
| 5 Cont. | 15-16 17 18-21 22 23-24 25 26 27-29 31-33 34 35 36 37-46 47 48-52 53 54-58 59 60-61 62 65 66 67 68 69 70 71 72 73 74 75-81 82 83-85 86 87-89 90 91-96 | - CU | | | 1 | 1 1 2 2 | 1 | | R | | mm | mm. |
| 6 | 1 2 3 4 5-7 8 9 10 11 12-22 23 24-28 | SH SH RH SH WF - RH - Y | 1 | 1 | 1 | 3 - 2 1 1 1 1 | 2 1 | - | SH SH - SH - U - | 1 - 1 | | |

Table 13.--Stages and sizes of fish eggs and larvae taken with the Hardy Plankton Recorder on Albatross III cruise no. 61, May 16-28, 1955--Continued

| | | | | | Suriac | 3001 | ntinue | 1 | | | | |
|------------|---|----------------------------------|---|-------|---------|------|--------|----|--------------------------------|------------------|---|-------|
| Loading | Gauze | Species | | | mber of | | | | | Larv | rae | |
| number | section | Species | I | II | III | IV | V | VI | Species | Number | Length | Range |
| 6 Cont. | 31-41 42 43-56 57 58 59-63 64 66-73 | - - - Y Y - RH | - | 1 1 | 1 | 1 | - | | RO | 1 | mm. - 3.0 - - - | mm. |
| | 74 75-80 81 82 83-86 | RH Y RO | - | 1 - 1 | - | - | - | | SH | - - - 1 | - - - 4.5 | - |
| 7 | 1 2 3 4 4 5 6 6 7 - 8 9 10 11 12 - 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 | | | | | | | | Y Y Y Y Y Y R O SH - SH - U SH | | 10.5 9.0 10 7.5 11 -4.5 -1 4.0 -1 -1 -1 -1 | |

Table 13.--Stages and sizes of fish eggs and larvae taken with the Hardy Plankton Recorder on $Albatross\ III$ cruise no. 61, May 16-28, 1955--Continued

10 Meters

| | | | | | | 0 110 001 | | | | | | |
|----------------|---------------------------------|---------|---|-----|-----|-------------------|-----|-----|---------|--------|----------|-------|
| Loading number | Gauze section | Species | | | | f eggs ed stag | | | | Larva | ae | |
| Humber | 50001011 | | I | II | III | IV | V | VI | Species | Number | Length | Range |
| | | | | | | | | | - | | mm. | mm. |
| 1 | 1-3 | - | _ | - | _ | - | _ | _ | - | - | _ | - |
| | 4 | Y | - | - | - | 1 | - | - | - | - | - | - |
| | 5 - 27 40 - 62 | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ |
| | | | | | | | | | _ | | _ | _ |
| 2 | 1-10 11 | H | _ | _ | _ | 1 | _ | - | _ | _ | _ | _ |
| | 12-17 | - | _ | _ | - | | _ | 1 - | _ | _ | _ | _ |
| | 18 | H | - | - | _ | 1 | _ | _ | _ | _ | - | _ |
| | 19-21 | - | - | - | _ | - | - | - | - | - | - | - |
| | 22 | H | - | - | 1 | - | - | - | - | - | - | - |
| | 23 - 31 32 | _ | _ | _ | _ | _ | _ | _ | | 1 | 6.1 | _ |
| | 33 | н | _ | _ | _ | _ | 3 | 1 | _ | - | - | |
| | 35 | _ | - | - | - | - | - | _ | H | 1 | 4.5 | - |
| | 36 | - | - | - | - | - | - | _ | | - | <u>.</u> | - |
| | 37 38 – 42 | - | - | _ | _ | - | _ | _ | H | 1 | 4.0 | - |
| | 43 | _ | _ | _ | _ | _ | _ | _ | c | 1 | 7.5 | - |
| | 44 | - | _ | _ | _ | _ | _ | _ | н | ī | 3.8 | _ |
| | 45-48 | - | - | - | - | - | ~ | - | - | - | - | - |
| | 49 | - | - | - | - | - | - | - | H | 1 | 4.0 | - |
| | 50 - 52 53 | _ | - | - | _ | - | _ | _ | H | 1 | 4.5 | _ |
| | 54-57 | _ | _ | _ | _ | _ | _ | _ | - | _ | 7.7 | _ |
| | 58 | H | _ | - | - | - | _ | 1 | - | - | _ | - |
| | 59-63 | = | - | - | - | - | - | - | - | - | - | - |
| | 64 65 | H - | _ | - | - | - | 1 - | - | - | - | _ | - |
| | 67-71 | _ | | _ | - | _ | _ | _ | _ | _ | [| - |
| | 72 | - | - | - | _ | - | - | _ | c | 1 | 6.5 | - |
| | 73-87 | - | - | - | - | - | - | - | - | - | - | - |
| 3 | 1-16 | - | | - | - | - | - | - | - | _ | - | - |
| | 17 18 | RO | - | 1 | - | - | - | | - | - | - | - |
| | 19 | - Н | - | _ | _ | 1 | _ | _ | - | _ | _ | - |
| | 20-33 | - | _ | _ | _ | _ | _ | _ | - | _ | _ | - |
| | 37-70 | - | - | - | - | - | - | - | - | - | - | - |
| | 72 - 93 | - | - | - | - | - | - | - | - | - | - | - |
| 4 | 1-32 | - | - | - | - | - | - | - | - | - | - | - |
| | 41 -4 9 50 | RO | _ | - | - | - | 1 | _ | | _ | _ | _ |
| | 51 | - NO | _ | | _ | - | - | - | [| _ | _ | _ |
| | 52 | RO | - | - ! | 1 | - | - | - | - | - | - | - |
| | 53 | - | - | - | - | - | - | - | - | - | - | - |
| | 54 55 – 61 | RO - | _ | _ | - | 1 | - | - | _ | - | _ | - |
| | 62 | - | _ | | _ | _ | _ | - | AM | ī | 7.5 | _ |
| | 66-75 | - | _ | - | - | - | - | - | _ | _ | - | - |
| | 76 | Y | - | - | - | 1 | - | - | - | - | - | - |
| | 77–97 | - | - | - | - | - | - | i - | - | - | - | - |

Table 13.--Stages and sizes of fish eggs and larvae taken with the Hardy Plankton Recorder on Albatross III cruise no. 61, May 16-28, 1955--Continued

10 Meters-Continued

| Cause number Cause section Cause section | | | | | | | | | | | | | |
|--|----|------------|---------|---|-----|-----|-----|-----|-----|---------|--------|--------|-------|
| | | | Species | | | | | | | | Larv | 80 | |
| 5 | | | | I | II | III | IV | v | VI | Species | Number | Length | Range |
| 11 12-17 | | | | | | | | | | | | mm. | mm. |
| 12-17 | 5 | | | - | | - | - | - | - | _ | | l . | - |
| 18 | | | 1 | 1 | | | | | | _ | | - | |
| 19-31 | | | | 1 | | 1 | | | | | | 11 | |
| 35 | | | 1 | 1 | 1 | 1 | l . | | | | 1 | | |
| 37 38 39 40 40 | | 3 5 | - | - | - | - | _ | - | - | | - | - | |
| 38 | | | 1 | - | - | - | - | - | - | Y | 1 | 2.8 | |
| 39 | | | | | 1 | | | | 1 | | | - | |
| 40 | | | | | | | | | 1 | | | | |
| 41 | | | | 1 | | | 1 | | i | | | | |
| 43 | | 41 | 1 | - | - | 1 | - | | | | 1 | | |
| A4-50 | | | | - | - | - | - | - | - | | | | |
| 51 | | | | | l . | 1 | | i e | | | | 5.0 | - |
| S2-61 | | | 1 | | 1 | 1 | | ĺ | | | | 17.5 | 15-20 |
| 62 | | | | | | | | 1 | | | | 17.0 | - |
| 64-65 67-70 71 71 72-74 75 SH | | | | | 1 | 1 | | | | U | 1 | 15 | _ |
| 67-70 71 72-74 75 SH 76 SH 77 78-83 84 CU 85-94 95 96-100 77 18 8 | | | | - | - | - | - | - | - | H | 1 | 20 | |
| 71 72-74 75 SH | | | | | | | | 1 | | | 1 | | 1 |
| 72-74 75 SH | | | 1 | | | | | | | | |) | |
| 75 76 SH 77 78 81 81 1 2 SH 1 3.0 | | | | | | | | | | 1 | 1 | 1 | |
| 77 78-83 84 CU | | 75 | | - | - | 3 | | | _ | SH | 2 | 3.0 | |
| 78-83 84 CU | | | SH | - | - | l . | 1 | 1 | 1 | | | | |
| 84 85-94 1 | | | | i | | | | | 1 | | | | |
| 85-94 95 96-100 | | | | | | 1 | | | 1 | 1 | 1 | | |
| 95 96-100 U 1 | | | | | | | | | | 1 | | | |
| 6* 1-17 | | 95 | - | _ | - | - | - | - | - | υ | 1 | - | - |
| 18 | | 96-100 | - | - | - | - | - | - | - | - | - | - | - |
| 7 25-26 Y 1 9.0 | 6* | 1-17 | _ | - | - | - | - | - | - | | | - | - |
| 7 25-26 Y 1 9.0 | | | | | | | | | 1 | | 1 | - | 1 |
| 7 25-26 U 1 15 - 28-29 V 1 7.0 - 31-32 CU 1 5.6 - 34 35-40 U 1 1 8.0 - 41 42-43 U 1 1 8.0 - 44 45-50 | | | | | | | | | | | | - |) |
| 7 | | | | | | 1 | | | | | 1 | 1 | |
| 27 28-29 30 31-32 33 | | | | | | | | | | | | | |
| 28-29 | 7 | | | | | 1 | l . | 1 | | | | - | |
| 30 31-32 33 34 35-40 41 42-43 44 45-50 51 M | | | | | | | 1 | 1 | | | | 12 | |
| 31-32 33 34 35-40 41 42-43 44 45-50 51 M | | | | | Į. | | 1 | 1 | l . | | | 7.0 | 1 |
| 34 35-40 41 42-43 44 45-50 51 M | | | 1 | | | | 1 | | | - | - | - | |
| 35-40 U 1 8.0 U 1 4.0 U 1 4.0 | | | 1 | | ł . | | | 1 | | | | | |
| 41 42-43 44 45-50 51 M | | | | 1 | | | | | | | l | 5.0 | |
| 42-43 U 1 4.0 45-50 1 | | | | | | | | | | _ | | 8.0 | |
| 44 U 1 4.0 | | | 1 | | | | | l . | | | | - | |
| 45=50 | | | | | 1 | | | 1 | - | U | 1 | 4.0 | |
| | | 45-50 | | - | - | - | | - | - | 1 | 1 | | |
| 22 | | | | | 1 | } | | | | | 1 | | |
| | | 52 | - | - | - | - | _ | - | _ | | | | |

^{*}Tows 1 and 2 - No samples - Fusee wire broke.

Table 14.--Gauze section data on Hardy Plankton Recorders towed at surface and 10 meters,

Albatross III* cruise no. 57, February 21 to March 2, 1955

| | | | | | 1 | 1 |
|-------------------|---------------------|----------------------|----------------------|---|------------------------------|------------------------------|
| Loading number | Gauze s | r | Number of sections | Distance travelled | Section equivalent | Conversion factor for |
| | Start | Finish | exposed | | | no./5 mi. |
| | | | Surface | | | |
| 1 | 2 29 51 71 | 28 49 69 98 | 27 21 19 28 | Miles 140.5 102.5 105.7 152.0 | 5.20 4.88 5.56 5.43 | 0.96 1.02 0.90 0.92 |
| 2 | 1 23 45 64 | 21 43 63 97 | 21 21 19 34 | 136.7 128.0 96.5 186.0 | 6.51 6.10 5.08 5.47 | 0.77 0.82 0.98 0.91 |
| 3 | 1 32 52 73 | 27 51 71 89 | 27 20 20 20 | 161.3 112.3 111.0 114.0 | 5.97 5.62 5.55 6.71 | 0.84 0.89 0.90 0.75 |
| 4 | 1 39 | 37 68 | 37 30 | 218.6 178.7 | 5.91 5.96 | 0.85 0.84 |
| | | | 10 Meters | | | |
| 1 | 2 27 48 70 | 21 42 63 91 | 20 16 16 22 | 140.5 102.5 105.7 152.0 | 7.03 6.41 6.61 6.91 | 0.71 0.78 0.76 0.72 |
| 2* | | | | | | |
| 3 | 1 21 35 48 | 17 32 46 60 | 18 12 12 13 | 161.3 112.3 111.0 114.0 | 8.96 9.36 9.25 8.77 | 0.56 0.53 0.54 0.57 |
| 4 | 62 1 | 87 20 | 26 20 | 218.6 178.7 | 8.41 8.94 | 0.59 0.56 |

^{*}Recorder and complete records for 500 miles lost on Browns Bank, 2/26/55, 0230.

Table 15.--Gauze section data on Hardy Plankton Recorders towed at surface and 10 meters, $Albatross\ III$ cruise no. 58, March 19 to April 1, 1955

| Loading | Gauze s | section | Number of sections | Distance | Section | Conversion |
|---------|---------------------|----------------------|----------------------|--|------------------------------|------------------------------|
| number | Start | Finish | exposed | travelled | equivalent | no./5 mi. |
| | | | Surface | | | |
| 1 | 1 27 57 77 | 24 55 76 92 | 24 29 20 16 | Miles 154.0 166.7 114.3 82.1 | 6.42 5.75 5.72 5.13 | 0.78 0.87 0.87 0.97 |
| 2 | 1 35 75 | 29 73 91 | 29 39 17 | 172.4 235.5 100.0 | 5.94 6.04 5.88 | 0.84 0.83 0.85 |
| 3 | 1 26 49 65 | 25 45 60 91 | 25 20 12 27 | 136.4 121.0 68.1 155.5 | 5.46 6.05 5.68 5.76 | 0.92 0.83 0.88 0.87 |
| 4 | 1 38 52 | 36 51 71 | 36 14 20 | 191.9 84.8 116.2 | 5.33 6.06 5.81 | 0.94 0.83 0.86 |
| 5 | 1 | 34 | 34 | 194.8 | 5.73 | 0.87 |
| | | | 10 Meters | | | |
| 1 | 1 25 61 81 | 22 50 80 95 | 22 26 20 15 | 154.0 166.7 114.3 82.1 | 7.00 6.41 5.72 5.47 | 0.71 0.78 0.87 0.91 |
| 2 | 1 34 75 | 30 72 91 | 30 39 17 | 172.4 235.5 100.0 | 5.75 6.04 5.88 | 0.87 0.83 0.85 |
| 3 | 1 25 48 62 | 23 45 58 83 | 23 21 11 22 | 136.4 121.0 68.1 155.5 | 5.93 5.76 6.19 7.07 | 0.84 0.87 0.81 0.71 |
| 4* | | | | | | |

^{*}Recorder and complete records for 500 miles lost on 3/30/55, 0840.

Table 16.--Gauze section data on Hardy Plankton Recorders towed at surface and 10 meters, Albatross III cruise no. 60, April 19 to May 2, 1955

| Loading number | Gauze s | ection Finish | Number of sections exposed | Distance travelled | Section equivalent | Conversion factor for no./5 mi. |
|-------------------|--------------------------------|-----------------------------------|----------------------------|--|------------------------------|---------------------------------|
| | Start | FINISH | exposed | | | 110./ 3 1111. |
| | | | Surface | | | |
| 1 | 1 32 51 73 | 28 49 71 100 | 28 18 21 28 | Miles 167.7 91.2 116.5 154.7 | 5.99 5.07 5.55 5.53 | 0.83 0.99 0.90 0.90 |
| 2 | 1 30 62 | 29 61 87 | 29 32 26 | 153.7 164.2 151.8 | 5.30 5.13 5.84 | 0.94 0.97 0.86 |
| 3 | 1 29 69 | 24 67 87 | 24 39 19 | 120.7 228.3 107.0 | 5.03 5.85 5.63 | 0.99 0.85 0.89 |
| 4 | 1 22 53 | 20 52 89 | 20 31 37 | 118.4 178.0 219.0 | 5.92 5.74 5.92 | 0.84 0.87 0.84 |
| 5 | 1 25 | 24 47 | 24 23 | 149.5 138.3 | 6.23 6.01 | 0.80 |
| | | | 10 Meters | | | |
| 1 | Fusee wire 1 17 36 60 | Couled - No sar 34 58 90 | mples 18 23 31 | 91.2 116.5 154.7 | 5.07 5.07 4.99 | 0.99 0.99 1.00 |
| 2 | 1 30 62 | 28 61 87 | 28 32 26 | 153.7 164.2 151.8 | 5.49 5.13 5.84 | 0.91 0.97 0.86 |
| 3 | 1 27 69 | 23 67 87 | 23 41 19 | 120.7 228.3 107.0 | 5.25 5.57 5.63 | 0.95 0.90 0.89 |
| 4 | 1 23 58 | 21 57 98 | 21 35 41 | 118.4 178.0 219.0 | 5.64 5.09 5.34 | 0.89 0.98 0.94 |
| 5 | Gear fouled | - No samples | | | | |

Table 17.--Gauze section data on Hardy Plankton Recorders towed at surface and 10 meters, Albatoss III cruise no. 61, May 16-28, 1955

| Loading | Gauze | section | Number of | Distance | Section | Conversion |
|---------|--------------|---------------|---------------------|-------------------------|------------------|----------------------|
| number | Start | Finish | sections exposed | travelled | equivalent | factor for no./5 mi. |
| | | | Surface | | | |
| 1 | 1 30 | 20 50 | 20 21 | Miles 129.5 174.3 | 6.48 8.30 | 0.77 0.60 |
| 2 | 1 | 31 | 31 | 176.3 | 5.69 | 0.88 |
| | 33 | 61 | 29 | 175.3 | 6.04 | 0.83 |
| | 63 | 82 | 20 | 113.5 | 5.68 | 0.88 |
| 3 | 1 | 30 | 30 | 182.3 | 6.08 | 0.82 |
| | 33 | 66 | 34 | 185.7 | 5.46 | 0.92 |
| | 69 | 89 | 21 | 117.8 | 5.61 | 0.89 |
| 4 | 1 | 27 | 27 | 172.5 | 6.39 | 0.78 |
| | 29 | 49 | 21 | 118.0 | 5.62 | 0.89 |
| | 57 | 86 | 30 | 175.5 | 5.85 | 0.85 |
| 5 | 1 | 29 | 29 | 165.3 | 5.70 | 0.88 |
| | 31 | 62 | 32 | 174.2 | 5.44 | 0.92 |
| | 65 | 96 | 32 | 171.5 | 5.36 | 0.93 |
| 6 | 1 | 28 | 28 | 159.8 | 5.71 | 0.88 |
| | 31 | 64 | 34 | 186.5 | 5.49 | 0.91 |
| | 66 | 86 | 21 | 110.0 | 5.24 | 0.95 |
| 7 | 1 | 27 | 27 | 134.3 | 4.97 | 1.01 |
| | | | 10 Meters | | , | |
| 1 | 1 | 27 | 27 | 129.5 | 4.80 | 1.04 |
| | 40 | 62 | 23 | 174.3 | 7.58 | 0.66 |
| ·2 | 1 | 33 | 33 | 176.3 | 5.34 | 0.94 |
| | 35 | 65 | 31 | 175.3 | 5.66 | 0.88 |
| | 67 | 87 | 21 | 113.5 | 5.41 | 0.92 |
| 3 | 1 | 33 | 33 | 182.3 | 5.52 | 0.91 |
| | 37 | 70 | 34 | 185.7 | 5.46 | 0.92 |
| | 72 | 93 | 22 | 117.8 | 5.35 | 0.93 |
| 4 | 1 | 32 | 32 | 172.5 | 5.39 | 0.93 |
| | 41 | 62 | 22 | 118.0 | 5.36 | 0.93 |
| | 66 | 97 | 32 | 175.5 | 5.48 | 0.91 |
| 5 | 1 | 31 | 31 | 165.3 | 5.33 | 0.94 |
| | 35 | 65 | 31 | 174.2 | 5.62 | 0.89 |
| | 57 | 100 | 34 | 171.5 | 5.04 | 0.99 |
| 6 | Tows 1 and 2 | Fusee wire br | oke - No sampl | es - Recorder | reloaded 5.24 | 0.95 |
| 7 | 25 | 52 | 28 | 134.3 | 4.80 | 1.04 |







